EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER

A DISSERTATION SUBMITTED TO

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT (PUNJAB)

IN THE PARTIAL FULFILLMENT

FOR THE AWARD OF DEGREE OF

M. PHIL

IN

CLINICAL PSYCHOLOGY

2022

Submitted By

AAVLEEN BAKSHI

DEPARTMENT OF CLINICAL PSYCHOLOGY
DAYANAND MEDICAL COLLEGE AND HOSPITAL
LUDHIANA, PUNJAB

DECLARATION BY THE CANDIDATE

I hereby declare that the dissertation entitled "**EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER**" submitted towards partial fulfillment of the requirements for the award of **M.PHIL in Clinical Psychology** degree to BFUHS is a compilation of original work carried out by me under the supervision of **Palak Upadhyay,** Assistant Professor, Department of Clinical Psychology, **Dr. Bholeshwar Prasad Mishra,** Professor & Head, Department of Clinical Psychology, and **Dr. Rupesh Chaudhary,** Professor, Department of Psychiatry. No part of this thesis has formed the basis for the award of any degree previously.

_____

AAVLEEN BAKSHI
Department of Clinical Psychology,
Dayanand Medical College & Hospital,
Ludhiana, Punjab

Date:

Place:

CERTIFICATE OF SUPERVISORS

This is to certify that the work incorporated in this dissertation entitled "**EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER"** has been carried out by **Aavleen Bakshi** under our direct supervision. The data incorporated in this thesis is original and genuine and has been carried out by the candidate herself.

Signature of Supervisor

Palak Upadhyay
Assistant Professor
Department of Clinical Psychology
DMC&H, Ludhiana

Signature of Co-Supervisors

Dr. Bholeshwar Prasad Mishra
Professor & Head
Department of Clinical Psychology
DMC&H, Ludhiana

Dr. Rupesh Chaudhary
Professor
Department of Psychiatry
DMC&H, Ludhiana

Date:

ENDORSEMENT BY THE HEAD OF THE INSTITUTE

This is to certify that the dissertation entitled "**EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER"** is a bonafide research work done by **Aavleen Bakshi** under the supervision of **Palak Upadhyay,** Assistant Professor, Department of Clinical Psychology, **Dr. Bholeshwar Prasad Mishra,** Professor & Head, Department of Clinical Psychology, and **Dr. Rupesh Chaudhary,** Professor, Department of Psychiatry, in this institution.

Principal

Dr. Sandeep Puri
Principal
DMC&H, Ludhiana

Date:

COPYRIGHT

Declaration by the Candidate

I hereby declare that the Baba Farid University of Heath Sciences, Faridkot, shall have the rights to preserve & use this dissertation in print or electronic format for academic/study purpose by the research scholar/students.

Signature

Aavleen Bakshi
Department of Clinical Psychology,
Dayanand Medical College & Hospital,
Ludhiana, Punjab - 141001

Date:

© Baba Farid University of Health Sciences, Faridkot

DEDICATED TO MY PARENTS,
MR. BHUPINDER SINGH BAKSHI
&
MRS. KAMALDIP BAKSHI;
AND
MY BROTHER, MR. AADITYA SINGH BAKSHI.

Thank you for always believing in me, thank you for always standing by me, thank you for always letting me be me. I am what I am, because of you.

ACKNOWLEDGEMENT

It has been a long journey and it wouldn't have been accomplished without the love and support of a lot of well wishers.

I am grateful for the constant help and guidance of my Supervisor Palak Upadhyay ma'am, Assistant Professor, Department of Clinical Psychology, DMCH. She was always there to encourage me and enlighten me throughout these two years. Her valuable insights have helped me tremendously to polish my professional rectitude.

I sincerely thank my Co-Supervisor Dr B.P. Mishra sir, HOD, Department of Clinical Psychology, DMCH. He has always inspired me with his passion for the field of Clinical Psychology and Mental Health. His approachability as a Professor has helped me clarify my innumerable queries without hesitation. I am forever indebted to him. His professional conduct and scholarly competence has always motivated me to work on myself to be a better professional and a better human being. His anecdotes throughout these two years will always stay with me.

I humbly thank my Co-Supervisor Dr Rupesh Chaudhary sir, Professor, Department of Psychiatry, DMCH for his valuable suggestions and scholarly guidance throughout this journey.

Thank you to all the patients who agreed to be a part of this study. Thank you to all the staff members of Department of Clinical Psychology and Department of Psychiatry who eased my way through this degree and dissertation.

My gracious thanks to Mrs. Namita Bansal and Mr. Naveen Bhatia from R&D Department, DMCH for helping me thoroughly with the analysis and formatting of this dissertation.

It is my great pleasure to thank those without whose support this thesis would have been an impossible task to complete. Mumma and Papa. Thank you for everything, everything that I can't put in words. Thank you for always pushing me up when I hit rock bottom, thank you for being my pillar of strength, thank you for letting me be me. I am always indebted to you.

Huge thank you to my loving brother Aaditya for always standing by me and helping me in every little way possible. Your support does not go unnoticed. I am proud of you always and hope that this dissertation makes you proud of me.

Thank you Nana, Nani for always being my rock support even on days when I fail to reciprocate. Thank you for always loving me unconditionally and being proud of me in my little achievements.

Thank you so much to Shashwat Jindal for always pushing me to achieve my best and making me realise I am meant for bigger things in life. Thank you for showing me the stars and giving me the courage to reach for them. Thank you for unfolding the blinds on my eyes and my mind whenever I fail to see myself and my potential on the darkest of days. I am more than grateful to have you by my side.

Huge thank you to Mrs Smita Jindal aunti, Mr Hariom Jindal uncle and Akshat Jindal for always supporting me in ways that you might not even know of. I am deeply grateful for the love, care and support you have given me throughout my MPhil degree. Thank you for always making me feel that I belong, thank you for always making me feel at home.

My loving and supportive seniors Ankit Kamboj, Sussana John, Tanya Sharma, Tavleen Kaur and Sneha Gulati, huge thank you to you for teaching me and supporting me throughout my degree and dissertation.

I would like to thank my brilliant colleagues Gursabeen Kaur, Juslin Jacob, Tamanna Singh & Vaishnavi Dang who sailed through with me in this rocky boat. I have learnt so much from you in these two years that I cannot explain.

Huge thank you to my best friends Aditi Chawla, Pavni Lakhanpal, Mitali Mathur and Rachita Sethi. Miles apart, but always in my heart. Your presence has always helped me go harder and stronger. You were there in the Acknowledgement of my Masters thesis, now my MPhil thesis and hopefully also my PhD thesis.

Thank you to this beautiful city of Ludhiana for giving me everything I couldn't have imagined. You have been magical and I am so glad I could be a part of you.

And at last, I would like to thank myself. Thank you to me for not giving up, for doing all this hard work personally and professionally, and for striving to be better than my yesterday self, everyday.

Aavleen Bakshi

ABBREVIATIONS

AA	Alcoholics Anonymous
ACT	Acceptance and Commitment Therapy
ASD	Autism Spectrum Disorder
AUD	Alcohol Use Disorder
CBT	Cognitive Behaviour Therapy
NA	Narcotics Anonymous
OUD	Opioid Use Disorder
PTSD	Post Traumatic Stress Disorder
SES	Socio economic status
SUD	Substance Use Disorder

ABSTRACT

Introduction: Substance use is a common problem among adults and it has devastating effects both on the individual and the family members. These individuals have hopelessness regarding their future, poor resilience and tend to use maladaptive coping strategies in times of stress. Acceptance and Commitment Therapy could address these concerns and could also contribute to relapse prevention strategies.

Aim of Study: 1) To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Alcohol). 2) To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Opioid). 3) To compare the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies amongst patients diagnosed with Alcohol Use Disorder and Opioid Use Disorder.

Materials & methods: The study will be conducted on patients (N=30) of Substance Use Disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder) admitted in psychiatry ward at DMC&H and psychological evaluation will be done pre and post ACT intervention using Beck Hopelessness Scale, Brief Resilience Scale and Brief COPE. 5 ACT sessions will be delivered via individual therapy. Data was analysed using SPSS 21version.

Results: ACT showed positive results on Hopelessness, Resilience, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Alcohol group. ACT showed positive results on Hopelessness, Resilience, Self Distraction, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Opioid group. The Alcohol and Opioid groups did not differ significantly pre and post ACT intervention on Hopelessness, Resilience and Coping Strategies (except for Self Distraction- pre intervention score).

Conclusion: ACT showed promising results in decreasing Hopelessness, increasing Resilience and use of effective Coping Strategies in patients with Substance Use Disorder.

Keywords: Substance use disorder, Acceptance and Commitment Therapy, ACT, Hopelessness, Resilience, Coping Strategies, Drug addicts, Therapy, Therapeutic Intervention.

TABLE OF CONTENTS

S. NO.	TOPIC	PAGES
I	INTRODUCTION	1-22
II	AIMS AND OBJECTIVES	23
III	REVIEW OF LITERATURE	24-47
IV	MATERIALS AND METHODS	48-61
V	OBSERVATIONS AND RESULTS	62-98
VI	DISCUSSION	99-115
VII	LIMITATIONS	116
VIII	SUMMARY AND CONCLUSIONS	117-120
IX	FUTURE DIRECTIONS	121
X	BIBLIOGRAPHY	122-139
	APPENDICES – I	
	- PROFORMA	
	- MASTER CHART	
	APPENDICES – II	
	- APPROVAL LETTER OF THESIS PLAN	
	- THESIS PLAN	

LIST OF TABLES

Table No.	Title	Page No.
1	Mean Age of participants in Alcohol and Opioid groups.	62
2	Gender distribution among participants in Alcohol and Opioid groups.	63
3	Distribution of Marital Status in Alcohol and Opioid groups.	64
4	Distribution of Educational Qualification in Alcohol and Opioid groups.	65
5	Distribution of Occupation in Alcohol and Opioid groups.	66
6	Distribution of Background in Alcohol and Opioid groups.	67
7	Distribution of Family Type in Alcohol and Opioid groups.	68
8	Distribution of Socio Economic Status in Alcohol and Opioid groups.	69
9	Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Alcohol group.	70
10	Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Opioid group.	71
11	Comparison of Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups.	73
12	Comparison of Pre and Post intervention scores on Resilience in Alcohol and Opioid groups.	74
13	Comparison of Pre and Post intervention scores on Self Distraction (Coping Strategy) in Alcohol and Opioid groups.	75
14	Comparison of Pre and Post intervention scores on Active Coping (Coping Strategy) in Alcohol and Opioid groups.	76
15	Comparison of Pre and Post intervention scores on Denial (Coping Strategy) in Alcohol and Opioid groups.	77

16	Comparison of Pre and Post intervention scores on Substance Use (Coping Strategy) in Alcohol and Opioid groups.	78
17	Comparison of Pre and Post intervention scores on Emotional Support (Coping Strategy) in Alcohol and Opioid groups.	79
18	Comparison of Pre and Post intervention scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups.	80
19	Comparison of Pre and Post intervention scores on Behavioural Disengagement (Coping Strategy) in Alcohol and Opioid groups.	81
20	Comparison of Pre and Post intervention scores on Venting (Coping Strategy) in Alcohol and Opioid groups.	82
21	Comparison of Pre and Post intervention scores on Positive Reframing (Coping Strategy) in Alcohol and Opioid groups.	83
22	Comparison of Pre and Post intervention scores on Planning (Coping Strategy) in Alcohol and Opioid groups.	84
23	Comparison of Pre and Post intervention scores on Humour (Coping Strategy) in Alcohol and Opioid groups.	85
24	Comparison of Pre and Post intervention scores on Acceptance (Coping Strategy) in Alcohol and Opioid groups.	86
25	Comparison of Pre and Post intervention scores on Religion (Coping Strategy) in Alcohol and Opioid groups.	87
26	Comparison of Pre and Post intervention scores on Self Blame (Coping Strategy) in Alcohol and Opioid groups.	88

LIST OF FIGURES

Figure No.	Title	Page No.
1	Mean Age of participants in Alcohol and Opioid groups.	62
2	Gender distribution among participants in Alcohol and Opioid groups.	63
3	Distribution of Marital Status in Alcohol and Opioid groups.	64
4	Distribution of Educational Qualification in Alcohol and Opioid groups.	65
5	Distribution of Occupation in Alcohol and Opioid groups.	66
6	Distribution of Background in Alcohol and Opioid groups.	67
7	Distribution of Family Type in Alcohol and Opioid groups.	68
8	Distribution of Socio Economic Status in Alcohol and Opioid groups.	69
9	Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Alcohol group.	72
10	Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Opioid group.	72
11	Comparison of Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups.	73
12	Comparison of Pre and Post intervention scores on Resilience in Alcohol and Opioid groups.	74
13	Comparison of Pre and Post intervention scores on Self Distraction (Coping Strategy) in Alcohol and Opioid groups.	75
14	Comparison of Pre and Post intervention scores on Active Coping (Coping Strategy) in Alcohol and Opioid groups.	76

15	Comparison of Pre and Post intervention scores on Denial (Coping Strategy) in Alcohol and Opioid groups.	77
16	Comparison of Pre and Post intervention scores on Substance Use (Coping Strategy) in Alcohol and Opioid groups.	78
17	Comparison of Pre and Post intervention scores on Emotional Support (Coping Strategy) in Alcohol and Opioid groups.	79
18	Comparison of Pre and Post intervention scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups.	80
19	Comparison of Pre and Post intervention scores on Behavioural Disengagement (Coping Strategy) in Alcohol and Opioid groups.	81
20	Comparison of Pre and Post intervention scores on Venting (Coping Strategy) in Alcohol and Opioid groups.	82
21	Comparison of Pre and Post intervention scores on Positive Reframing (Coping Strategy) in Alcohol and Opioid groups.	83
22	Comparison of Pre and Post intervention scores on Planning (Coping Strategy) in Alcohol and Opioid groups.	84
23	Comparison of Pre and Post intervention scores on Humour (Coping Strategy) in Alcohol and Opioid groups.	85
24	Comparison of Pre and Post intervention scores on Acceptance (Coping Strategy) in Alcohol and Opioid groups.	86
25	Comparison of Pre and Post intervention scores on Religion (Coping Strategy) in Alcohol and Opioid groups.	87
26	Comparison of Pre and Post intervention scores on Self Blame (Coping Strategy) in Alcohol and Opioid groups.	88

INTRODUCTION

SUBSTANCE USE

As per National Cancer Institute, psychoactive substance is a drug that has an effect on the working of the brain and causes changes in one's mood, behaviour, awareness, thoughts and feelings.[1] This includes alcohol, opioids, cannabis, hallucinogen, inhalants, sedatives, caffeine, tobacco, stimulants, etc. As per American Psychological Association, a substance is a drug of abuse, a medication or a toxin that is capable of producing harmful effects when ingested or otherwise taken into the body.[2] Substance related disorders are those caused by the effect of these drugs or toxins.

The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) encompasses substance use and substance induced disorders.[3] Substance-induced disorders include intoxication, withdrawal, and other substance/medication-induced mental disorders like psychosis, bipolar disorder, depression, anxiety, obsessive compulsive disorder, sexual dysfunction, sleep disorders, delirium and neurocognitive disorders.

Substance use disorders are a cluster of cognitive, behavioural, and physiological symptoms indicating that the individual continues to use the substance in spite of significant substance-related problems.[3] An important feature of substance use disorders is an underlying change in brain circuits that can last long after detoxification, especially in people with severe disorders. When individuals are exposed to drug-related stimuli, the behavioural effects of these brain changes may manifest as repeated relapses and intense drug craving. Long-term approaches to treatment may be beneficial for these long-term drug effects.

Excessive use of any substance causes direct activation of the brain reward system, which is involved in the reinforcement of behaviours

and the formation of memories. They cause such a high level of reward system activation that routine activities may be disregarded. Rather than activating the reward system through adaptive actions, medications of abuse engage the reward pathways directly. Although the pharmacological mechanisms by which each class of drug causes reward differ, the medicines typically activate the system and produce sensations of pleasure, which are sometimes referred to as a "high." Those with lower self-control, which could be due to deficits in brain inhibitory processes, are more likely to develop substance use disorders.

ALCOHOL

'Alcohol' refers to 'ethyl alcohol.' In diluted concentrations of absolute (i.e., 100 percent) ethyl alcohol, it is consumed as an alcoholic beverage. One standard alcoholic beverage equals 10 g absolute alcohol. The amount varies depending on the type of alcoholic beverage. Beer, wine, whiskey, rum, vodka, gin, brandy, etc are amongst the most commonly consumed alcoholic beverages.

PREVALENCE:

According to the World Health Organization (WHO), the total per capita consumption of alcohol by people over the age of 15 is 6.2 L of pure alcohol per year, which equates to 13.5 g of pure alcohol per day. Alcohol consumption is responsible for nearly 5.1 percent of the global disease burden, and it kills nearly 3.3 million people each year.[4]

In India, the 12-month prevalence of Alcohol Use Disorders was 2.6 percent in 2010, and alcohol dependence was 2.1 percent. In 2012, drunk driving was responsible for 33.1 percent of all traffic fatalities. According to the National Mental Health Survey of India 2015–16, the prevalence of AUDs in adult men is 9%. The alcohol-attributable fraction (AAF) of all cause deaths in India was found to be 5.4 percent. Alcohol use was responsible for approximately 62.9 percent of all deaths due to liver cirrhosis.[5]

ALCOHOL USE DISORDER- DIAGNOSTIC CRITERIA AS PER DSM-5[3]:

A. A problematic pattern of alcohol use that results in clinically significant impairment or distress, as manifested by at least two of the following over a 12-month period:

1. Alcohol is frequently consumed in greater quantities or over a longer period of time than intended.
2. There is a persistent desire or unsuccessful attempts to reduce or control alcohol use.
3. A significant amount of time is spent on activities that are required to obtain alcohol, use alcohol, or recover from its effects.
4. Craving, or a strong desire or urge to consume alcohol.
5. Recurrent alcohol use that results in a failure to meet major role obligations at work, school, or home.
6. Continued alcohol use despite persistent or recurring social or interpersonal problems caused or exacerbated by alcohol's effects.
7. Significant social, occupational, or recreational activities are discontinued or reduced as a result of alcohol use.
8. Recurring use of alcohol in physically hazardous situations.
9. Continued alcohol use despite knowledge of a persistent or recurring physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
10. Tolerance, as defined by one of the following:

a. The requirement for markedly increased amounts of alcohol to achieve intoxication or the desired effect.

b. A significantly diminished effect with continued use of the same amount of alcohol.

11. Withdrawal manifested by any one of the following:

a. The characteristic withdrawal syndrome for alcohol.

b. Alcohol (or a closely related substance, like benzodiazepine) is used to relieve or prevent withdrawal symptoms.

CONSEQUENCES:

1. **Medical Consequences:** Various gastrointestinal complications, cancer, changes in genitourinary system, neurological complication and psychiatric symptoms have been related to prolonged alcohol use. Alcoholic liver disease is another common complication associated with chronic alcohol use. Lower bone density is one of the effects of alcohol consumption on the skeletal system.[6] Blackouts, blurred vision, impaired memory, and slower reaction times are some of the short-term effects of alcohol consumption that can be alleviated by discontinuing alcohol consumption.[7]

2. **Familial Consequences:** The person intoxicated may engage in domestic violence with family members; may deplete the family's savings, which can have a negative impact on children's education; thereby having a negative impact on the family's psychological well-being. In a study conducted in Bangalore by Gururaj et al., it was discovered that emotionally abusing the spouse was 2.5 times more common among those who consume alcohol, 23.3 percent of users physically abused their spouse, and 7.8 percent of them physically abused their spouse resulting in injuries.[8]

3. **Social Consequences:** Alcohol has been implicated as one of the major factors related to social isolation. Those who are mostly in an intoxicated state are generally shunned and looked down upon by society. Many of them have to succumb to their homes. Most of their social circle comprises of others who are also chronic alcohol users.

4. **Economic Consequences:** According to a study conducted by Benegal et al. (2000),[9] alcohol-dependent people spent more money than they earned, they were forced to take loans to pay for their alcohol-related expenses, on average, 12.2 working days were lost to the habit, and around 60% of the families were financially supported by the income of other family members.

5. **Legal Consequences:** Sexual/physical assault, rape, exploitation of women in commercial sex work, and homicide are often crimes committed as a result of alcohol intoxication. According to the National Crime Records Bureau of India, the various crimes related to alcohol consumption are classified under four major acts: the Prohibition Act, the Gambling Act, the Psychotropic Substance Act, and the Excise Act. However, the main reason that the public nuisance caused by alcohol abuse goes unnoticed is that those crimes are classified as petty crimes, which largely go unrecognised.[10]

RISK FACTORS:

1. **Environmental:** Cultural attitudes toward drinking and intoxication, the availability of alcohol (including price), acquired personal experiences with alcohol, and stress levels are few environmental risk factors. Other potential mediators include higher peer substance use, exaggerated positive expectations of alcohol's effects, and suboptimal stress coping strategies.

2. **Genetic:** Alcohol use disorder runs in families, with genetic influences explaining 40–60% of the variance in risk. Close relatives of individuals with alcohol use disorder have a three to four times higher rate of this condition, with values highest for individuals with a greater number of affected relatives. The monozygotic twin of an individual with the condition has a significantly higher rate of alcohol use disorders than the dizygotic twin.[11]

3. **Personality:** Park et al. (2009)[12] discovered that individuals with high levels of impulsivity/novelty seeking seemed to gravitate toward Greek societies due to the heavy drinking environment associated with these organisations. Neuroticism has been associated with increased alcohol use.[13]

OPIOID

Opium is a highly addictive natural narcotic derived from the poppy plant, Papaver somniferum. To make opium, the milky fluid that seeps from the incisions in the unripe seedpod of this poppy is scraped by hand and air-dried. Opium can be smoked, intravenously injected, or taken in pill form. Morphine, codeine, heroin are derivatives of Opium poppy. Afeem, doda, chitta are some of its regional names.

India is located between the world's two largest illicit opium-producing regions – the "Golden Crescent" (Iran, Afghanistan, Pakistan) and the "Golden Triangle" (Myanmar, Thailand, Laos), thus making it vulnerable to being both a destination and a transit route for opioids.[14] India itself is one of the largest legal producers of opium.

PREVALENCE:

According to a national survey on drug use in India, the prevalence of opioid use was found to be 0.7 percent of the general population, with approximately 22.3 percent being opioid dependent.[15] The prevalence of illicit opiate consumption in India is twice the global average.[16] It is estimated that approximately 4 million people in India use opioids and approximately 1 million people are opioid dependent. According to a recent study, approximately 232,000 people in Punjab alone were opioid dependent. [17] As a result, there is undoubtedly a significant burden of opioid addiction in many parts of India.

OPIOID USE DISORDER- DIAGNOSTIC CRITERIA AS PER DSM-5[3]:

A. A problematic pattern of opioid use that results in clinically significant impairment or distress, as manifested by at least two of the following over a 12-month period:

1. Opioids are frequently taken in greater quantities or for a longer period of time than intended.
2. There is a persistent desire or failed attempts to reduce or control opioid use.

3. A significant amount of time is spent on activities that are required to obtain the opioid, use the opioid, or recover from its effects.
4. Craving, or a strong desire or urge to use opioids.
5. Recurrent opioid use that results in a failure to meet major role obligations at work, school, or home.
6. Opioid use that continues despite persistent or recurring social or interpersonal problems caused or exacerbated by opioid effects.
7. Significant social, occupational, or recreational activities are discontinued or reduced as a result of opioid use.
8. Repeated opioid use in situations where it is physically dangerous.
9. Opioid use that continues despite knowledge of a persistent or recurring physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by one of the following:

a. The requirement for significantly higher doses of opioids to achieve intoxication or the desired effect.

b. A significantly reduced effect with continued use of the same amount of opioid.

11. Withdrawal manifested by one or more of the following:

a. The typical opioid withdrawal syndrome.

b. Opioids (or a similar substance) used to alleviate or avoid withdrawal symptoms.

PHYSIOLOGICAL EFFECTS:

Opioids are chemicals that interact with opioid receptors on nerve cells in the body and brain to reduce pain. They can be natural or synthetic (made in laboratories to mimic the properties of natural opioids). They are a drug class that includes prescription pain relievers, synthetic opioids, and heroin. Opioids on prescription are intended to be used to treat acute pain. The drugs also reduce anxiety, induce relaxation, drowsiness, and sedation, improve mood, slow respiration and heartbeat, suppress the cough reflex, and relax the smooth muscles of the digestive tract.

ETIOLOGY:

Substance dependence are the result of biological, environmental, genetic, and psychosocial factors. [18] Opioid use disorders affect people of all educational and socioeconomic backgrounds. Addiction has a biological basis. People who are deficient in neurotransmitters like dopamine are more likely to seek out external sources of endorphins. Some people may turn to opioids in an attempt to self-correct this deficit. A person who has first-degree relatives with a substance abuse disorder is more likely to develop an opiate use disorder. The heritability of opioid use disorder is estimated to be 50%.[19] Patients with opioid use disorder who are exposed to an opioid-using environment may be more likely to develop a substance abuse disorder. Patients with a history of depression, post-traumatic stress disorder (PTSD), or anxiety, as well as patients with a history of childhood trauma and abuse, are more likely to abuse opioids.[20]

HOPELESSNESS

Hope is defined by the American Psychological Association as the expectation that one will have positive experiences or that a potentially threatening or negative situation will not materialise or will eventually result in a favourable state of affairs.[21] Hope is also linked to optimism, which is the attitude or outlook that good things will happen and one's wishes or goals will be realised in the end.

HOPE THEORY BY SNYDER [22]:

There are three major components that comprise hopeful thinking:

1. **Goals** – Taking a goal-oriented approach to life.
2. **Pathways** – Identifying alternative approaches to achieving your goals.
3. **Agency** – Believing in your ability to effect change and achieve your goals.

Thus, hope was defined as the perceived capability to derive pathways to desired goals and motivate oneself via agency thinking to use those pathways.

On the other hand, the belief that one will not experience positive emotions or see an improvement in one's condition in Hopelessness.[23]

FORMS OF HOPELESSNESS BY SCIOLI AND BILLER [24]:

1. **Alienation:** This type of hopelessness stems from the belief that others have forgotten about one or do not consider one a peer. One may feel different in some ways, and bonding with others is difficult as a result. Because one is hopeless at bonding with others, one may repeatedly reject and avoid them first.

2. **Forsakenness:** In this case, hopelessness stems from the feeling that others abandoned one when one needed them the most. One may also feel rejected or stigmatised, leading one to distrust others and one's surroundings.

3. **Lack of inspiration:** One may develop this type of hopelessness if one is not feeling mentally stimulated or creative. One might feel stymied or unable to be creative in some or all areas of one's life.

4. **Doom:** This stems from a sense of being doomed or condemned to a particular negative outcome in life. This despair may stem from early life events or from dealing with chronic or terminal illnesses.

5. **Helplessness:** Feeling one is unable to stand up for oneself or act without someone's help may result in this form of hopelessness.

6. **Captivity:** This arises if one has ever been a physical prisoner or been in an abusive relationship that made one feel like one wasn't free to act or do what one wanted. This emotion can also arise if one believes that one put oneself in danger or allowed others to mistreat one because one believed one deserved it.

7. **Powerlessness:** One may feel hopeless if one believes their actions have no influence or impact on others or the world. One may believe that they lack the strength or authority to make decisions or effect change, and that one must rely on what others decide or do.

8. **Oppression:** This type of hopelessness is linked to a sense of not being treated fairly or equally, particularly at the macro level. Systemic and persistent racism or sexism, for example, can lead to hopelessness in the face of oppression.

9. **Limitedness:** One may believe that one lacks the necessary resources or skills to achieve one's objectives, or that one is constrained by physical or financial constraints.

HOPELESSNESS THEORIES:

Abramson's and Beck's theories on the relationship between maladaptive cognitive styles and vulnerability to major depression can be used to interpret hopelessness.[25,26] Negative attributions to life events, according to Abramson's theory, are produced by stable and global causes, when people believe that it is impossible to change what happens. Regardless of whether the event is perceived as future or current, stable or global, both affirm that negative thoughts increase the likelihood of depressive occurrence.[27] In simple words, some people are predisposed to depression due to a cognitive vulnerability that interacts with stressful life events. Cognitive vulnerability is defined as an individual's tendency to make specific inferences about the cause, consequences, and self-worth implications of stressful life events. When confronted with a stressful life event, an individual with cognitive vulnerability is more likely to: (a) attribute the event to stable and global causes; (b) interpret the event as likely to lead to other negative consequences; and (c) interpret the event as implying that he or she is unworthy or deficient. Individuals who generate these negative inferences are thought to be vulnerable to hopelessness, and thus to depression as well.

According to Beck's theory, hopelessness is interpreted through a negative triad that includes a negative view of oneself, one's personal world, and one's future.[28] Individuals with a negative style are more vulnerable to depression because they perceive and remember information from stressful events with negative consequences more

frequently. Hopelessness has been shown repeatedly to be one of the best predictors of suicidal ideation and eventually suicide.

Hopelessness has been considered as one of the most significant correlates in those with substance use disorder. There is often hopelessness and helplessness regarding leaving the substance of addiction. Recurrent relapses strengthen this sense of hopelessness which pushes the person further into the whirlpool of substance and maintains the vicious cycle. Extensive psychosocial support by professionals and family members is required to help the individual build hope, set goals and work towards achieving them to eventually pull him out of this whirlpool.

RESILIENCE

The ability to mentally or emotionally cope with a crisis or quickly return to pre-crisis status is referred to as psychological resilience.[29] A person is resilient when they use "mental processes and behaviours in promoting personal assets and protecting themselves from the potential negative effects of stressors".[30] In layman's terms, psychological resilience exists in people who develop psychological and behavioural abilities that allow them to remain calm during crises/chaos and move on without long-term negative consequences. Resilience not only entails overcoming a highly stressful situation, but also emerging from it with "competent functioning." Resilience enables a person to recover from adversity as a stronger and more resourceful individual.[31] According to Aaron Antonovsky (1979),[32] a resilient response is more likely when an event is assessed as comprehensible (predictable), manageable (controllable), and somehow meaningful (explainable).

CYCLE OF RESILIENCY:

When confronted with adversity, people can approach the situation in one of three ways [33]:

1. Erupt in rage.

2. Implode under the weight of overwhelming negative emotions, becoming numb and unable to respond.
3. Simply become upset about the disruptive change.

Only the third approach promotes well being. It is used by resilient people who are upset by the disruptive state and thus change their current pattern to cope with it. The first and second approaches cause people to play the victim, blaming others and rejecting any coping methods even after the crisis has passed. These people would rather react instinctively to a situation than respond to it. Those who adapt to adversity tend to cope, bounce back, and bring the crisis to a close.

TYPES OF RESILIENCE BY GENIE JOSEPH [34]:

1. **Natural resilience** is the resilience that one is born with and that comes naturally. This is one's human nature and vitality. Those who have natural resilience are excited about life's experiences and are eager to play, learn, and explore. Natural resilience enables one to go forth and do one's best even if one is knocked down and thrown off course.
2. **Adaptive resilience** occurs when one is forced to learn, change, and adapt as a result of adversity. Learning to roll with the punches in life can help one develop resilience and grow stronger as a result.
3. **Restored/ learned resilience**: One can learn techniques to help build resilience and, as a result, regain the natural resilience possessed as a child. This can assist in dealing with past, present, and future traumas in a more healthy manner.

COMMUNITY RESILIENCE

The ability of a distinct community or cultural system to absorb disturbance and reorganise while undergoing change in order to retain key structural and identity elements that preserve its distinctness is referred to as community or cultural resilience.[35] The concept has been used in South Africa to study how individual communities coped with violence and poor socio economic conditions during the post Apartheid era.

RESILIENCE MODELS BY FERGUS AND ZIMMERMAN, 2005 [36]:

1. C**ompensatory model:** It describes a situation in which a resilience factor acts in the opposite direction of a risk factor. The resilience factor has a direct effect on the outcome that is independent of the risk factor's effect. For example, abstinence or moderation in alcohol consumption is compensatory in the sense that it is directly and independently associated with a lower risk of youth suicide.

2. **Protective model:** Assets or resources in the protective model moderate or reduce the effects of a risk on a negative outcome. Protective factors may help to mitigate the effects of risks; they may weaken, but not completely eliminate, the effects of risks; or they may enhance the positive effect of another promotional factor in producing an outcome. For example, while not directly associated with lower suicide risk, being drug-free is associated with lower alcohol use, which is protective in the sense that it increases the latter's anti-suicide potential.

3. **Challenge model:** The relationship between a risk factor and an outcome is "curvilinear": low and high levels of a risk factor are linked to bad consequences, whereas moderate degrees of risk are linked to positive results. Adolescents who are exposed to moderate levels of danger, for example, may be met with enough of the risk factor to learn how to overcome it, but not so much that it is difficult to overcome.

7 C's OF RESILIENCE BY DR GINSBURG [37]:

1. **Competence:** It is the capacity to deal effectively with challenging situations. It necessitates the ability to face problems and the opportunity to practise applying such skills so that one feels competent in dealing with situations.

2. **Confidence:** It is rooted in competence and is defined as belief in one's own abilities. When one demonstrates their skills and competence in real-life settings, they build confidence.

3. **Connection:** Those who have strong relationships to their peers, families, and neighbourhood groups are more likely to feel secure and belong. They are more likely to have strong values and are less prone to engage in other damaging activities.

4. **Character:** Individuals require a basic sense of right and wrong in order to make responsible decisions, contribute to society, and feel valued.

5. **Contribution:** A sense of purpose is a potent motivator. Giving back to the community strengthens strong reciprocal ties.

6. **Coping:** People who learn to properly manage stress are better prepared to deal with hardship and disappointments.

7. **Control:** Individuals who have a knowledge of internal control become problem-solvers rather than victims of circumstance. Individuals are more likely to regard themselves as capable and confident when they understand that they can control the outcomes of their decisions.

BUILDING RESILIENCE BY AMERICAN PSYCHOLOGICAL ASSOCIATION [38]:

1. Maintain positive relationships with close family members, friends, and others.
2. Avoid viewing crises or stressful events as insurmountable problems.
3. Accept circumstances that cannot be changed.
4. Set realistic goals and work toward them.
5. Take decisive action in adverse situations.
6. Seek opportunities for self-discovery following a loss experience.
7. Build self-confidence.
8. Maintain a long-term perspective and consider the stressful event in a broader context.
9. Keep a positive attitude, expect good things and visualise what is desired.

10. Look after one's mind and body by exercising regularly and paying attention to one's own needs and feelings.

COPING

Coping is described as the thoughts and activities used to deal with internal and external stressful conditions.[39] It distinguishes conscious and intentional mobilisation acts from 'defence mechanisms,' which are subconscious or unconscious adaptive responses aimed at reducing or tolerating stress.[40] Individuals' coping styles are a set of relatively consistent traits that determine an individual's behaviour in reaction to stress, and are defined as the many ways in which they deal with stress when exposed to a stressor.[41] These remain constant over time and in different conditions.

TYPES OF COPING BY KNOLL & SCHWARZER [42]:

1. **Proactive coping** refers to the thoughts and actions taken in advance of a stressful circumstance.[43] Individuals use it to maximise their gains. It's a more challenge-based strategy that encourages people to conserve existing resources while also seeking out new ones. Proactive coping is the collection of resources that support the advancement toward demanding goals that contribute to personal progress by being able to anticipate dangers, demands, and possibilities. Individuals that utilise proactive coping mechanisms do not regard impending stress as a threat, harm, or loss, but they are able to perceive various situations as challenges.

   5 stages in proactive coping: resource accumulation, recognition of potential stressors, initial appraisal, preliminary coping efforts, and the elicitation and use of feedback concerning initial efforts.

2. **Reactive coping** is a stress-management method that entails compensating for or accepting the harm or loss connected with a past or current stressful circumstance.[44] It might also include readjusting goals, seeking benefits, or looking for purpose. All the events have

actually happened in the past; thus, the individual who needs to cope either has to compensate for the loss or alleviate the harm.

3. **Anticipatory coping** is a stress-management method aimed at avoiding or minimising problems linked with a significant event that may occur in the near future and poses a danger.[45] Anticipatory coping can thus be defined as the management of known risks, involving efforts to either solve the actual problems (e.g., by increasing effort, enlisting help, or investing other resources) or to feel good despite the risks (e.g., by increasing effort, enlisting help, or investing other resources) (e.g., by redefining the situation as less threatening, by distraction, by gaining reassurance from others).

4. **Preventive coping** is a stress-reduction approach in which one prepares for long-term occurrences by accumulating resources to lessen the degree of their impact.[46] Job loss, forced retirement, criminality, disease, and poverty are examples of such occurrences that may or may not occur in the near future. The ambiguity promotes a wide range of activities aimed at enhancing one's psychological qualities while also accumulating income, social bonds, and abilities (e.g., maintaining a savings account, locking the doors when away from home, carrying health insurance). Preventive coping does not arise from a high-stress circumstance, but rather from a legitimate concern about the risks of everyday life.

COPING MODEL BY LAZARUS & FOLKMAN [47]:

Problem focused coping entails attempting to manage or change the problem that is creating stress. These tactics are comparable to those used in ordinary problem-solving: they entail identifying the issue, examining potential solutions, weighing the costs and benefits of each, and finally choosing an option. When we take a problem-focused approach to stress management, we actively endeavour to solve the problem.

Emotion focused coping entails attempting to alter or lessen the negative emotions that come with stress. Avoiding, minimising, or distancing oneself from the situation, positive comparisons with others, or looking for anything positive in a terrible event are examples. Reappraisal, in which the stressor is perceived differently (and somewhat self deceptively) without affecting its actual objective level of threat, is one example of emotion-focused coping methods.

APPROACH COPING:

Approach coping is characterised as actively approaching a stressor in order to seek information, social support, plan ahead, and attempt to solve the problems.[48] Approach coping can also entail vigilance, in which a person responds to stress by paying more attention to and analysing negative information.

AVOIDANCE COPING:

Avoidance coping is a passive coping approach in which a person disengages from a stressful situation or an active coping strategy in which a person turns away from or tries to flee from a stressful situation.[49] This includes behavioural attempts to physically remove oneself from an aversive circumstance, as well as cognitive/emotional strategies to diminish thoughts or feelings, such as mental detachment or denial.

INFLUENCES ON COPING:

1. **Individual influences:** Qualities of the individual that influence coping include age, gender, socioeconomic status, temperament or personality, beliefs, and values.

2. **Situational influences**: The degree to which the stressor is acute vs chronic in form, is familiar or unfamiliar, is controlled, contains threat rather than loss, involves a conflict situation, and is interpersonal in nature are all factors that influence coping.

3. **Environmental influences:** Coping behaviour is also influenced by familial, cultural, and social factors in the environment. When children

observe both the conduct and the consequences of various coping options, they are more likely to use that coping approach when confronted with a comparable scenario.

Poor coping strategies, lack of resilience and increasing sense of hopelessness can also be implicated with substance relapse. Rigorous psychotherapy protocol needs to be carried out with the patient to work on these variables and thereby move towards substance abstinence.

INTERVENTION USED IN THE STUDY- ACCEPTANCE AND COMMITMENT THERAPY (ACT)

'ACT' is a mindfulness- based behavioural therapy created in 1986 by Steven C. Hayes and further popularized by Russ Harris. It utilizes an eclectic mix of metaphor, paradox, and mindfulness skills, along with a wide range of experiential exercises and values-guided behavioural interventions.[50]

The abbreviation ACT stands for:

- **A**ccept your thoughts and emotions
- **C**hoose a valued direction
- **T**ake action

DEFINITIONS:

- ACT is a type of therapy that aims to help patients accept what is out of their control, and commit instead to actions that enrich their lives.[51]
- According to the Association for Contextual Behavioral Science (ACBS), ACT is: "a unique empirically based psychological intervention that uses acceptance and mindfulness strategies, together with commitment and behavior change strategies, to increase psychological flexibility."

GOAL:

The aim of ACT is to create a rich, full and meaningful life, while accepting the pain that inevitably goes with it [51]. The aim is to increase psychological flexibility.

PSYCHOLOGICAL FLEXIBILITY:

The ability to contact the present moment and the psychological reactions it produces, as a fully conscious human being, and based on the situation, to persist with or change behaviour for valued ends.[51]

ACT MODEL OF PSYCHOPATHOLOGY [51]:

1. **COGNITIVE FUSION:** Cognitive fusion refers to the tendency to act in the world based on verbally ascribed functions. The thought and the person who thinks it merge into one, concealing the nature of the language process. Fusion can cause a lack of contact with actual, real-life events or experiences, causing thoughts to become self-confirming.

2. **EXPERIENTIAL AVOIDANCE:** When people strive to suppress or escape the discomfort that thinking causes, the situation becomes problematic. Experiential avoidance has been defined as the endeavour to flee or avoid the form, frequency, or situational sensitivity of private occurrences, even when doing so causes psychological harm. In most mental health conditions, the same paradox emerges: attempting to eliminate undesired private occurrences leads to growing dominance by those events. The behavioural impact is a narrowing of one's repertory, which eventually leads to a mental health issue.

The main goals of ACT are to undermine these two processes and to assist clients in moving forward in valued directions by establishing psychological flexibility, or behaviour that is sensitive to the current context.[51]

EXPERIENTIAL EXERCISES:

Clients engage in experiential exercises in the therapy context to confront thoughts and feelings that they are generally afraid of or avoid. Private occurrences can be watched with more distance and detachment in a safer environment, enabling for behaviour that is more in line with values to emerge.[51] In this structure, language processes may be viewed, investigated, and defused more simply.

THERAPY MODEL [52]:

1. **Acceptance:** This entails adopting a non judgmental awareness toward one's thoughts, feelings and bodily sensations as they arise. Allowing unpleasant feelings, sensations, urges, and other private experiences to come and go without struggling with, running from, or paying undue attention to them. The process begins with the client learning to recognise unworkable behaviours, which are those that do not align with his/ her values. Following that, the client notices how attempting to manage an unwelcome intimate experience results in a struggle. Acceptance entails letting go of the battle while continuing to concentrate on external concerns that can be altered.

2. **Cognitive defusion:** It's about learning to perceive thoughts, images, memories, and other cognitions for what they are—nothing more than bits of language, words, and pictures—rather than for what they might appear to be—threats, rules to follow, objective truths and facts. It's about attempting to mitigate the negative effects of language's damaging functions. It entails attempting to redirect attention away from the content of thoughts and toward the process of thinking itself, diminishing the verbally given functions in the process. Defusion produces a sense of separation from one's thoughts, as if the person is standing back from their head like an observer.

3. **Contact with the present moment:** Clients are taught to recognise their external and internal experiences. The foundation is laid by mindfulness practise. It's about being fully aware in the present moment, with openness, interest, and receptivity; focusing on, and fully engaging in whatever one is doing. Later, this can be expanded into operant exposure routines, in which clients learn to generate new behaviour in the context of previously avoided experience depending on values they choose.

4. **Self-as-context/ the Observing Self:** Self-as-content refers to cognitive fusion with concepts like 'I'm worthless,' in which the person's identity is caught up in the content of the particular thought. A wider

perspective is required to fully experience painful feelings or to truly stand back from uncomfortable thoughts without trying to modify them. Self-as-context is a transcendent notion of self that can be established through defusion and mindfulness. The 'observer' self, in this view, is not threatened by the content of experience, but rather by the framework in which all experience takes place. It is possible to immediately experience that one is not one's thoughts, feelings, memories, impulses, sensations, visions, roles, or physical body from this perspective. These are rather one's peripheral aspects.

5. **Values:** Clients are encouraged to express their valued directions. These 'values' are not moods or goals, but rather a continual process of behaviour that connects to a deeper sense of purpose and meaning. Clarifying what is most essential to one's heart; the type of person one wishes to be; what is relevant and meaningful to one; and what one wishes to stand for in this life.

6. **Committed action:** Committing to go in desired valued directions while experiencing unpleasant or painful thoughts and feelings. Setting goals and taking effective action to accomplish them, guided by values. Clients are encouraged to choose between an easy life and a rich, complete life, and to find the willingness to endure painful thoughts and feelings in the service of progressing in a valued direction. As the client's behaviour becomes more aligned with their fundamental ideals, vitality emerges.

   ACT has proven effective with a diverse range of clinical conditions; depression, OCD, workplace stress, chronic pain, the stress of terminal cancer, anxiety, PTSD, anorexia, heroin abuse, marijuana abuse, etc.[53]

   Hence, Acceptance and Commitment Therapy sessions aimed at increasing resilience, reducing hopelessness and building adaptive coping strategies can prove fruitful in therapy protocol for patients with

Substance use disorder aiming for substance abstinence and relapse prevention.

AIMS AND OBJECTIVES

- To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Alcohol).
- To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Opioid).
- To compare the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies amongst patients diagnosed with Alcohol Use Disorder and Opioid Use Disorder.

REVIEW OF LITERATURE

SUBSTANCE USE

Psychoactive substance use poses a threat to the health and social and economic fabric of families, communities and nations.[54] Cravings or urges, decrease in self-control, and a compulsive engagement in unhealthy behaviors each characterize patients with addiction.[55]

Zeidonis et al. (1997) [56] discussed the high prevalence of dual diagnosis in case of patients with substance use disorder. Different combinations of psychiatric disorders and mental illnesses have been associated with substance use. Integrated treatment approach to tackle both the diagnosis is comparatively difficult.

As per Rahman (2003) [57] one of the many harmful private and social consequences of compulsive consumption of substance is mortality. Chronic alcohol consumption has been linked to an increased risk of liver cirrhosis, kidney failure, and mental illness, as well as an increased chance of lung, throat, and stomach cancer from even moderate cigarette use. Alcohol intake is also linked to a slew of negative externalities, including violence, crime, and a higher rate of automobile accidents.

The country's first systematic effort to document the prevalence of drug usage is the National Household Survey of Drug Use (2004).[58] Apart from tobacco, the most often used substance was alcohol (21.4%), followed by cannabis (3.0%), and opioids (0.7%). 17- 26% of alcohol users met the criteria for an ICD 10 diagnosis of dependency, implying a prevalence of around 4%. Males used tobacco at a high rate of 55.8%, with the age group 41-50 years old having the highest rate of use.

In a study by Kalivas et al. (2005) [59] examining the neural basis of addiction, it was found that by decreasing the value of natural rewards, diminishing cognitive control (choice), and increasing glutamatergic

drive in response to drug-associated stimuli, cellular changes in the prefrontal glutamatergic innervation of the accumbens promote the compulsive nature of drug seeking in addicts.

Peer pressure and curiosity were amongst the most common psychosocial factors associated with drug initiation and maintenance (Saddichha et al., 2007).[60] This was further linked to lesser years of formal education and higher monthly income as compared to individuals dependent on alcohol.

Rani et al. (2013) [61] studied mental health symptoms and substance use among urban school going adolescents. Findings suggested that greater proportion of students suffered from mental health symptoms like feelings of hopelessness, loneliness, sadness, disturbed sleep further related to lack of support from parents and friends. Substance use among adolescents was strongly associated with parental substance use and lack of parental supervision.

In a study done by Barry et al. (2014),[62] respondents held more unfavourable attitudes of people who were addicted to substance. More people showed disapproval of having a substance user marry into their family or work closely with them. Respondents were more prepared to accept discriminatory behaviours against drug addicts, were more doubtful of treatment effectiveness, and were more likely to oppose programmes designed to help them.

Sher (2016) [63] explored the association between alcohol and drug use with crime. Violent crime was linked to acute intoxication and the need for money to continue using expensive drugs in case of those with dependence. Exposure to drug culture and drug markets was correlated with various types of crime.

SOCIO DEMOGRAPHIC PROFILE AND SU

Saluja et al. (2007) [64] studied drug dependence in adolescents. It was found that many adolescents came from nuclear families (63.5%), came from urban backgrounds (83.5%), and were school dropouts

(54.1 percent). Opioids were the most commonly used primary class of substance (76.2 percent), and heroin was the most commonly used opioid (36.5 percent). At the time of the presentation, more than half of the subjects (54.2 percent) were also nicotine dependent. Almost half of the subjects (40.2 percent) had a positive family history of either drug dependence or a psychiatric disorder (5.5 percent).

In a study conducted by Saxena et al. (2010) [65] on 511 males in Dehradun, it was found that 46.9% participants from grades 10th and 12th accepted substance use. The source of obtaining substance for 75.5% of them was via friends. Majority of the participants expressed a desire to quit the substance used.

Gupta et al. (2013) [66] conducted a study on 120 patients admitted in 10 different de addiction centers in Punjab. All the inmates were males. 47.5% were in age group of 20-30 years. 59% belonged to rural area. 46% were in upper middle socioeconomic status & 65% patients were married.

An epidemiological study conducted by Arora et al. (2016) [67] on substance use in rural Amritsar observed that maximum substance users were between the age range of 20- 49 years. Every alternate male person had used a drug at least once in his life. The study also observed that maximum substance users were either cultivators or labourers. Illiterate persons were more involved in substance use than literate persons. Those with a larger family size were more involved in drug use.

A study conducted by Arora et al. (2016) [68] studied the socio demographic profile of patients approaching a medical college in Punjab for de addiction services. The sample consisted of 200 patients. It was found that all the patients who approached the center were males with 50% patients in the age range of 25-35 years. Maximum participants (38%) belonged to the Lower Middle Socio Economic Status.

Nagrale et al. (2018) [69] conducted a study on 460 patients admitted at de-addiction centres in Chhattisgarh. 79% were male participants, 52% belonged to the age group 17-40 years, 60% were married and 74% belonged to rural area. It was also found that maximum patients (41.09%) attending the deaddiction facilities were Graduates.

Chavan et al. (2019) [70] studied the prevalence of SUDs in Punjab. 2895 individuals from four districts of Punjab were interviewed. It was observed that almost 80% participants had a high school education or less, and 70% were married. Alcohol and other substance use disorders had a weighted prevalence of 7.9 and 2.48 percent, respectively. Tobacco dependence was 5.5%, and 35% of households had at least one person with a substance use disorder. The prevalence was highest in the productive age group (30-39 years), in urban metro areas, and among those with less education.

Another study by Randhawa et al. (2020) [71] on 966 patients of substance use admitted in a de-addiction center found 100% of the participants to be of male gender and natives of Punjab. Maximum number of participants (53.21%) were married and 47.2% were self employed.

HOPELESSNESS

According to a study by Weismann et al. (1979),[72] hopelessness among drug users was a significant predictor of suicidal behaviour and presented an important target for therapeutic intervention.

Page et al. (1993) [73] found that lonely, substance-using adolescents were 25 times more likely to be severely hopeless than the non-substance-using, non-lonely adolescents in the control group. Lonely teens who become intoxicated by alcohol were 15.9 times more likely than the control group to be hopeless. Hopelessness was frequently associated with suicidal conduct.

Ethnographic literature on inner-city life claims that adolescents abandon hope in the face of their uncertain prospects, prompting them

to engage in high-risk behaviour as per Bolland (2003).[74] Hopelessness predicted behaviours like substance use, violence, aggression, accidental injury and risky sexual behaviour.

A longitudinal study by Kuo et al. (2004) [75] concluded hopelessness as an independent risk factor for suicidality.

Malmberg et al. (2010) [76] examined the relationship between substance use and anxiety sensitivity, hopelessness, sensation seeking and impulsivity in early adolescence. It was found that hopelessness and sensation seeking were indicative of poly substance use and an earlier age of onset of substance use.

In a study conducted by Du et al. (2014) [77] on young migrants in China, it was found that both individualism and substance use; collectivism and substance use were mediated by hopelessness. Individualistic orientation was linked to higher hopelessness and, as a result, higher substance use, whereas collectivistic orientation was linked to lower hopelessness and, as a result, lower substance use.

Karamat et al. (2015) [78] found that higher level of hopelessness and lower level of collective self esteem was associated with substance use in a Pakistani sample of 60 men.

Paiva et al. (2017) [79] investigated the relationship between depression, anxiety, hopelessness and quality of life in substance dependency in outpatient treatment. Beck Depression Inventory-II, Beck Anxiety Inventory, Beck Hopelessness Scale and WHO Quality of Life instrument-Abbreviated version were used for the same. Results revealed prevalence rates of 32% for depression, 24% for anxiety, and 12% for hopelessness, at a moderate/severe level in substance dependency. Psychiatric symptoms were negatively correlated to quality of life.

Niranjjan et al. (2018) [80] studied hopelessness, psychological distress and needs for health service among adolescents in rural Pondicherry.

Results concluded that one out of every five teenagers in rural Puducherry reported psychological discomfort, and ten percent of adolescents had a moderate level of hopelessness, necessitating mental health and counselling assistance.

Soylar et al. (2020) [81] investigated the relationship between spiritual well-being and hopelessness in substance users in Turkey. Spiritual well-being and hopelessness were negatively correlated. Scores on Beck Hopelessness scale were positively correlated with the number of inpatient treatment admissions. The level of hopelessness decreased as the level of spiritual well-being increased.

RESILIENCE

Luthar et al. (2000) [82] define resilience as positive adaptation in spite of adversity.

Bowland [83] defines resilience as the process of effectively negotiating, adapting to, or managing significant sources of trauma.

Fadardi et al. (2010) [84] studied the relationship between resilience, motivational structure and substance use amongst 120 university students. It was found that the mediation between resilience and substance use was done by motivational structure. Both resilience and motivation structure were inverse predictors in case of substance abuse.

Burnett et al. (2016) [85] investigated the relationship of trauma, substance use, and resilience among religiously affiliated university students. When these relationships were investigated using partial correlations while controlling for resilience, strong significant positive associations were found between having experienced a disaster-type event and alcohol use in the previous year and the previous 30 days for male gender.

Research on adverse childhood experiences (ACEs) by Goodman (2017) [86] focused on the importance of building resilience and better

coping strategies in children having experienced childhood trauma to avoid development of SUD in later adulthood.

In a meta analysis conducted by Hodder et al. (2017) [87] on school based resilience interventions targeting substance use in adolescents, the findings supported the deployment of universal school-based treatments to minimise teenage illicit substance use by addressing "resilience" as a protective characteristic.

Ahmad et al. (2017) [88] studied the role of socio demographics, personality and resilience among patients with SUD in Kashmir. The data found that the majority of the patients were single, illiterate, from an age group below 25 and belonging to high-income nuclear households. Personality traits such as being less intelligent, self-sufficient, experimenting, and being easily impacted by emotions were commonly found. Rehabilitation was found to be aided by resilience factors.

Martz et al. (2018) [89] predicted that brain activity in the right dorsolateral prefrontal cortex associated with inhibitory control to be a neurological indicator of resilience against higher substance use among kids with a family history of substance use.

A cross sectional study on 298 patients with SUD by Yang et al. (2019) [90] in China investigated the relationship between self esteem, self control, self efficacy and resilience in SUD. The findings suggested that the path from self-control through resilience, and self-esteem, and onto self-efficacy, was substantial among individuals with SUD, implying that improving self-control, resilience, and self-esteem could increase self-efficacy.

McKinley et al. (2021) [91] examined a family programme to improve resilience and wellness while reducing substance misuse and violence among Native American (NA) families. Results showed reductions in (a) adult depressive symptoms and improvements in adult conflict resolution and health behaviours; (b) adolescent wellbeing; and (c)

adult and adolescent resilience, community mastery, and social support, in addition to drug abuse reduction and prevention. The findings suggest the efficacy of the programme in promoting resilience and thereby lowering the probability of substance misuse and violence in NA families.

Rathinam et al. (2021) [92] concluded that long-term abstinence could be aided by social work interventions that focused on building resilience in people with SUDs.

Valsala et al. (2021) [93] conducted a qualitative study on a tribal community to understand mental resilience in the context of alcohol use. Perception, social support networks, faith, awareness, biological and psychological responses, financial factors, and alternative drugs were identified as resilience themes in the context of alcohol use.

COPING STRATEGIES

Stress coping strategies, according to Folkman et al. (1986), [94] were cognitive and behavioural efforts used to manage (dominate, tolerate, diminish, or limit) external or internal specific demands that were beyond one's reach or power. Problem-focused coping allowed one to concentrate solely on the incident that was generating stress. Emotion-focused coping approach, on the other hand, aimed to control the emotional exhilaration brought on by stress.

Cooper et al. (1992) [95] conducted a study on 1,300+ adult drinkers from a New York county's general population. Findings suggested stress-induced drinking was a subset of men (but not women) who scored high on avoidance coping and positive expectancy from alcohol. Men with low avoidance coping and low alcohol expectancy, on the other hand, demonstrated a negative relationship between stressful life events and alcohol use.

Sinha et al. (2000) [96] studied coping strategies among Indian and Canadian students. The results revealed that Indian students preferred

emotion-focused coping strategies and were less satisfied with their social support systems than their Canadian counterparts.

In a randomly drawn sample of 1,608 men and 1,645 women from the Dutch Lifestyle and Health Study, Veenstra and colleagues (2007) [97] investigated the impact of coping style on alcohol use in response to stressful life events. Individuals who scored high on emotion coping, drank more alcohol when confronted with a negative life event than those who scored low on emotion coping. Although there was no difference in alcohol use during stressful situations based on cognitive or action coping, the study discovered that cognitive coping and having more social contacts were associated with lower alcohol use overall.

Bavojdan et al. (2011) [98] studied the relationship between mental health, self-efficacy beliefs, coping strategies and locus of control in male drug abusers in Iran. There were significant correlations between mental health and self-efficacy beliefs, problem-oriented coping strategy, emotion-oriented coping strategy and external locus of control. Increased levels of general self-efficacy, problem-oriented coping techniques, and internal locus of control improved mental health while emotion-oriented coping strategies and external locus of control resulted in poor mental health in those abusing drugs.

Majer et al. (2012) [99] evaluated impact of attending 12 step recovery program of AA and NA in recovering addicts/alcoholics in terms of coping strategies. Participants who were categorically involved in 12-step programmes exhibited lower levels of emotion-focused coping strategies and higher levels of social-support coping strategies and abstinence self-efficacy. Participation in 12-step programmes provided recovering alcoholics/addicts with active coping techniques for their ongoing recovery.

A qualitative study conducted by Nadkarni et al. (2013) [100] explored coping strategies in alcohol use disorders. AUDs were linked mostly to psychosocial stress, peer pressure, disposable income, and pleasure

of drinking with negative consequences in terms of social life, family life, personal health, and family finances. Men with AUD and their significant others used a variety of coping techniques, including avoidance, substitution, distraction, religious activities, support from AA/friends/family, limiting access to alcohol, and anger management.

Sudraba et al. (2015) [101] studied stress coping strategies among patients with alcohol and drug addiction in Latvia. According to the findings, drug and alcohol addicts used more emotion-oriented coping strategies than problem-oriented coping strategies. Accepting responsibility and seeking social support were two commonly used coping methods.

A qualitative study by Church et al. (2018) [102] evaluated the nature of support available and coping techniques employed by family members of those addicted to alcohol in Goa, India. Accommodating to the addicted relative's conduct, financially adapting to their means, self-harm, reasoning with the relative, covert interfering, and avoiding conflicts and disagreements were frequently used coping mechanisms. There was a prevailing apprehension about seeking help, and the types and quality of help offered were restricted. Neighbours and family primarily offered help in the form of a "listening ear" or financial assistance. Religious and spiritual interests were frequently employed to find peace and to cope with negative thoughts and feelings.

HOPELESSNESS, RESILIENCE, COPING STRATEGIES AND SUBSTANCE USE

Galaif et al. (2003) [103] studied relations among depression, stress, and coping in high risk youth. Findings suggested that perceived stress increased feelings of hopelessness and seeking of social support which further reduced the use of anger coping. Anger coping behaviours were found to be important in maintaining depression and perceived stress, as well as increasing hard drug use over time in adolescents.

Karatas et al. (2011) [104] studied the relation between self esteem, hopelessness and resilience in adolescents in Turkey. The research showed a correlation between adolescent self-esteem, hopelessness, and resilience. In adolescents, self-esteem and hopelessness were significant predictors of resilience. The relationship between self-esteem and resilience was positive, but the relationship between hopelessness and resilience was negative.

Gooding et al. (2011) [105] predicted that low hopelessness scores predicted greater resilience in younger and older adults.

Hjemdal et al. (2012) [106] found that protective resilience factors outperformed stressful life events, depressive and anxiety symptoms, and personality in predicting hopelessness.

Grover et al. (2016) [107] studied religious coping among patients attempting self harm. Beck Hopelessness Scale, Beck Depression Inventory, Barratt Impulsivity Scale, etc were used to assess hopelessness, depression, impulsiveness, suicidal ideations, and irritability. When compared to healthy controls, those who self-harm used less positive religious coping and more negative religious coping.

Somasundaram et al. (2016) [108] found that resilience was significantly associated with less hopelessness and higher levels of perceived social support (coping strategy) among cancer patients.

In a study of college students conducted by Herbert et al. (2017),[109] it was discovered that the majority of students experienced high stress in the area of relationship. The main coping strategies used were social support and distraction. Majority of students had medium resilience. Positive affect, extraversion, problem-solving coping and social support had a significant positive correlation with resilience.

A review on SUD literature by Rudzinski et al. (2017) [110] portrayed drug use as a risk factor that jeopardised one's potential to be resilient,

or as a "maladaptive coping style" that demonstrated one's lack of resilience.

Ravindran et al. (2019) [111] conducted a study on perceived stress, coping, quality of life, and hopelessness in Cancer patients. Findings suggested that Cancer patients used maladaptive coping strategies, suffered from psychological distress, experienced increased hopelessness and had lower QOL.

Stress, problem-focused and emotion-focused coping strategies emerged as significant predictors of resilience among social work students in India as found by Stanley et al. (2020).[112]

Collazoni et al. (2020) [113] concluded that resilience acted as a mediator in the relationship between several risk factors associated with interpersonal functioning and hopelessness.

ACCEPTANCE AND COMMITMENT THERAPY

Acceptance and Commitment Therapy (ACT) is a behavioral therapy designed to foster psychological flexibility through experiential learning, specific language techniques, and mindfulness. The ACT model of behavior change has been shown to have positive outcomes across a broad range of applied problems and areas of growth. Process and outcome evidence suggest that the psychological flexibility model underlying ACT provides a unified model of behavior change and personal development that fits well with the core assumptions of counseling psychology.

Strosahl et al. (1998) [114] did a study to check the effectiveness of ACT. 18 therapists, 8 of whom were trained in ACT participated in the 1-year project. All of the project's clinicians' clients were evaluated. Clients of ACT-trained therapists reported significantly better coping than clients of untrained therapists, and were more likely to complete treatment within 5 months of treatment initiation. There was also evidence that training increased clients' self-perceptions of psychological acceptance. Clients of ACT-trained therapists were more likely to have completed

therapy and to agree with their clinician about the ongoing status of therapy 5 months after the initial session.

Heffner et al. (2003) [115] found that ACT helped in achieving improved quality of life and near 100% sobriety in the treatment of alcohol dependence.

A preliminary trial by Hayes et al. (2004) [116] on Intensive Twelve-Step Facilitation (ITSF) and ACT with polysubstance-abusing methadone-maintained opiate addicts found that addition of ACT to methadone maintenance was associated with lower objectively assessed opiate and total drug use during follow-up than methadone maintenance alone, as well as lower subjective measures of total drug use during follow-up.

Use of ACT for comorbid conditions with high level of experiential avoidance like PTSD and SUD gave effective results as per Batten et al. (2005).[117]

A preliminary investigation of ACT was done by Twohig et al. (2007)[118] and it was found that participants reported zero levels of marijuana use posttreatment. Depression, anxiety, withdrawal symptoms, and general levels of experiential avoidance also improved.

Petersen et al. (2009) [119] conducted a study at an involuntary inpatient clinic for patients with alcohol dependence who also had depression. Patients were randomly assigned to either Treatment as usual (TAU) therapy or ACT therapy. The amount of group and individual therapy received by both groups was roughly the same. Patients in the ACT group were discharged from the unit significantly faster than those in the TAU group because they met the discharge criteria.

As per Smout et al. (2010) [120] ACT may be a viable alternative to CBT for methamphetamine use disorders.

Karekla et al. (2010) [121] studied an ACT approach to religious coping in patients of cancer. By emphasising openness when addressing religious and spiritual issues in therapy and actively utilising such beliefs to achieve treatment goals, ACT appeared to be promising in incorporating spirituality. ACT also held promise when working with people diagnosed with serious illnesses such as cancer because of its emphasis on acceptance and on exploring an individual's values and using these values to motivate the individual to take action. ACT's sensitivity to a person's belief system encourages an environment in which the client could openly discuss his or her religious and spiritual beliefs, as well as how they apply those beliefs in daily life.

Moran (2011) [122] studied the use of ACT in leadership in organizational settings and found Acceptance and Commitment Training was effective in increasing work performance and innovation while reducing work stress and work errors, thereby developing Crisis Resilient Change Managers.

ACT can be applied to other religious contexts as studied by Hayes et al. (2011).[123] There is significant overlap, for example, between ACT and Christian beliefs. The Garden of Eden storey can be interpreted as a metaphor for the power and problem of thoughts that cause suffering, which ACT addresses in therapy.

As per Hayes et al. (2012),[124] when used in SUD, the core of ACT was for people to accept the urge and symptoms of substance misuse (acceptance), and then use psychological flexibility and value-based interventions to reduce the urge and symptoms (commitment).

Yadavaia et al. (2012) [125] evaluated effectiveness of 6-10 sessions of ACT on self stigma around sexual orientation. Positive changes were observed in self stigma, depression, anxiety, quality of life, stress and perceived social support.

Weineland et al. (2012) [126] conducted a pilot RCT on ACT for patients undergoing bariatric surgery. When compared to the TAU group,

participants in the ACT condition significantly improved on eating disordered behaviours, body dissatisfaction, quality of life, and acceptance of weight-related thoughts and feelings.

Luoma et al. (2012) [127] conducted a study targeting effective interventions on shame, a very relevant variable in SUDs. The study was conducted on 133 patients in a 28-day residential addictions treatment programme. Patients were subjected to a group-based intervention for shame based on the principles of ACT. Treatment as usual (TAU) or the ACT intervention were assigned to consecutive cohort pairs. The ACT intervention comprised of three 2-hour group sessions scheduled over the course of a single week. According to the findings, the ACT intervention resulted in smaller immediate gains in shame but larger reductions at the 4-month follow-up. Those who participated in the ACT group also had fewer days of substance use and higher treatment attendance at the follow-up.

Morton et al. (2012) [128] studied the use of group-based ACT for Borderline Personality Disorder. It was found that addition of ACT to Treatment As Usual had significant positive change on anxiety and hopelessness. Psychological flexibility and emotion regulation skills acted as mediators for hopelessness.

Stotts et al. (2012) [129] conducted a study on ACT for Methadone detoxification. Results found that 37 percent of participants in the ACT condition were successfully detoxified, compared to 19 percent of those who received Drug Counseling (DC). Fear of detoxification decreased over time in the ACT condition compared to the DC condition.

Nordin et al. (2012) [130] conducted group based ACT for patients with multiple sclerosis experiencing psychological distress. Results showed that ACT helped increasing acceptance in patients.

A case study by Burrows (2013) [131] on use of ACT with survivors of adult sexual assault suffering from PTSD found ACT to be effective in

reducing experiential avoidance, thought suppression, trauma symptomatology, and increasing valued action and quality of life.

Bricker et al. (2013) [132] conducted the first web-based acceptance and commitment therapy (ACT) intervention for smoking cessation in a pilot randomised control trial. For the 10-week study, 222 people were recruited. Participants were found to spend significantly more time on the ACT website per login and to be more satisfied with the site. Using available follow-up data, the ACT group had more than double the proportion of participants who had quit smoking at the 3-month follow-up.

Bricker et al. (2014) [133] conducted another pilot randomised trial of telephone-delivered ACT versus CBT for smoking cessation on 121 adult smokers who wanted to quit smoking. It was observed that ACT participants made more phone calls than CBT participants. ACT participants reported that their treatment was 100 percent effective in helping them quit smoking. When checked for abstinence at 6 months, 97 percent of ACT participants said they would recommend their treatment to a friend, and the quit rates were 31 percent in ACT versus 22 percent in CBT. It was determined that ACT was feasible to deliver over the phone, was highly acceptable to quitline callers, and had high quit rates when compared to standard CBT quitline counselling.

Bricker et al. (2014) [134] tested the feasibility, acceptability, preliminary efficacy, and mechanism of behavioral change of a smartphone-delivered acceptance and commitment therapy (ACT) application for smoking cessation vs. an application following US Clinical Practice Guidelines. The study included 196 participants. When compared to the application that followed US Clinical Practice Guidelines, ACT was more feasible to deliver via smartphone application and showed 5% higher engagement and 7% higher quit rates.

A randomized controlled trial conducted by Menéndez et al. (2014) [135] aimed to compare the long-term efficacy of ACT versus CBT in the

treatment of drug abuse. Participants included 37 polydrug-addicted females who were assessed before, after, and at 6-,12-, and 18-month follow-ups. In both conditions, the analyses revealed reductions in drug abuse, anxiety levels, and avoidance repertoire, with no differences between groups. However, only ACT participants had lower rates of mental disorders. At the 18-month follow-up, ACT outperformed CBT in terms of abstinence rates. To summarise, the ACT intervention appeared to be an adequate treatment option for incarcerated women with addictive behaviours and co-occurring disorders.

Fung (2014) [136] reflected that in its approach to alleviate suffering, ACT appeared to be consistent with some of the core tenets of Buddhism.

Alcoholism has a negative impact on the individual, family, and society as a whole. It has serious consequences for one's physical and psychological well-being. Addiction and relapse susceptibility are exacerbated by stress and a lack of emotional regulation. George et al. (2015) [137] conducted a study to understand the effect of ACT on 32 alcohol-addicted participants. The significant difference in pre-test and post-test scores revealed the effectiveness of ACT Program in alcohol dependence.

Pur et al. (2015) [138] investigated the effectiveness of acceptance and commitment therapy on perceived stress, stress coping strategies, and illness perception in women with Ulcerative Colitis. Results indicated significant changes in coping strategies in the experimental group.

Datta et al. (2016) [139] conducted a study on 107 Cancer patients in Kolkata to assess how well a cancer patient managed stress over the course of the psychological intervention. Data collection was done pre and post intervention and at 2 months follow-up. Psychological intervention was required to assess disease acceptance, stress management, well-being, and life meaning. ACT was administered and a significant difference was found between pre and post intervention

scores in the meaning of life and acceptance level. This concluded that ACT could be used as an effective intervention approach for cancer patients in order to increase acceptance of the disease while also improving meaning of life.

A research by Ernst et al. (2016) [140] on paediatric chronic illness studied the effect of ACT on resilience. Children with chronic illnesses often face multiple stressors related to their illness, such as dealing with illness-related procedures, managing a massive illness burden, dealing with aversive physical symptoms, and attempting to minimise the impact of the illness on their quality of life. ACT was shown to improve psychological flexibility in children suffering from chronic illnesses which further reflected many of the factors associated with resilience and positive coping, like active engagement in stressors, emotion regulation, and continued participation in developmentally expected activities.

ACT is a value-driven therapy that aims to alleviate human suffering by facilitating the transcendence of physical, mental, and emotional experiences. ACT has some overlap with the domain of spirituality. As a spiritually integrated therapy, ACT can assist clients in accessing spiritual resources, creating life meaning, and resolving or transforming spiritual struggles as studied by Santiago et al. (2016).[141]

Towsyfyan et al. (2016) [142] looked into the efficacy of ACT in the treatment of adolescents suffering from major depression. The study was quasi-experimental, with a pre-test, post-test, and follow-up with a control group. 16 female adolescents with major depression disorder were chosen at random and divided into two groups of eight, one experimental and one control. To treat the experimental group, eight 60-90 minute ACT sessions were carried out. Then, for each group, a post test was administered, and two months later, each group received a follow-up. According to the findings, ACT had a significant effect on the treatment of adolescents with major depression.

Shayeghian et al. (2016) [143] conducted a randomized control trial on effectiveness of ACT for Type 2 Diabetes Management. 53 patients underwent 10 sessions of ACT and completed 3-month follow up assessment. Results indicated that who underwent ACT engaged in effective coping strategies, had better diabetes self-care and optimum glycated hemoglobin levels.

Dadashi et al. (2017) [144] studied the effect of ACT on Hope in women with breast cancer undergoing Chemotherapy. ACT sessions were delivered through 8 weeks (each session lasting 45 minutes) on 30 women. Findings suggested efficacy of ACT as a treatment for breast cancer treated patients including those with low levels of hope.

Seyyedjafari et al. (2017) [145] concluded that treatment based on Acceptance and Commitment Therapy increased resilience of the elderly.

Montazer et al. (2017) [146] conducted a study in Iran to assess the efficacy of ACT on cancer patients' hope. Using convenience sampling, 34 patients were chosen and randomly assigned to one of two groups: treatment or control. For 12 weeks, 3 hours per week, the treatment group received ACT-based psychological therapy. The findings revealed significant differences in pre-test and post-test scores between the control and treatment groups. The study concluded that ACT-based psychological therapy helped cancer patients maintain hope.

Bahrami et al. (2017) [147] sought to ascertain the effects of ACT on the severity of addiction in methamphetamine users. Thirty subjects from Tehran were randomly assigned to either an ACT or a waiting-list control (WLC) condition. The treatment intervention was delivered in 12 weekly 45–60 minute sessions. The results showed that ACT reduced the severity of addiction in seven dimensions: medical condition, occupational status, alcohol use status, substance use status, legal status, family status, and psychological condition. The seven

dimensions of addiction severity were improved by increasing psychological flexibility by redirecting experiential avoidance to experiential acceptance and clarifying values. Thus, the findings suggest that ACT has a positive effect on reducing the severity of addiction in methamphetamine users.

Patients experiencing pain, anxiety, or depression before any surgery are more likely to develop chronic pain and use opioids for a long time afterward. Dindo et al. (2018) [148] conducted a randomized pilot study to assess the use of 1 day ACT workshop on prevention of chronic postsurgical pain and opioid use in at-risk veterans undergoing orthopaedic surgery. Treatment conditions of TAU or TAU plus a 1-day ACT workshop were assigned to 88 at-risk veterans. Pain levels and opioid use were monitored for three months after surgery. At the baseline and 3-month follow-up, pain acceptance and values-based behaviour were assessed. Participants who completed the ACT workshop reached pain and opioid cessation sooner than those who participated in TAU. Increase in pain acceptance and values-based behavior was targeted in ACT and was related to better outcomes. The effects of ACT were greater in patients without complications.

Hassani et al. (2018) [149] concluded Acceptance and commitment therapy program to be an effective therapeutic intervention for improving quality of life and resilience of breast cancer patients.

A study by Udell et al. (2018) [150] examined the effectiveness of ACT based program called Mindfulness for Pain and Performance Enhancement (MMPE) on US Navy Recruits. They concluded that use of the program could contribute to reduced attrition and increased resiliency of sailors.

Another study by Ghorbani et al. (2019) [151] showed that ACT led to an increase in positive cognitive regulation, resilience, self-control, and a decrease in negative cognitive regulation in divorced women.

Moghbel et al. (2019) [152] concluded that ACT was effective on meaning of life, family functioning, and resiliency; thus, it could improve such variables in the caregivers of patients with schizophrenia.

Abdolazimi et al. (2019) [153] found that ACT improved perceived social support and its components including family support, support for friends and support of important people in the elderly.

Salimi et al (2019) [154] study the effectiveness of 8 group based ACT on Emotional Cognitive Regulation strategies in mothers of children with ASD. As per the findings, ACT had a significant effect on positive/planning strategy refocusing ($p<0.01$), positive reappraisal ($p<0.01$), self-blaming ($p<0.01$), blaming others ($p<0.01$), viewing a situation as disastrous ($p<0.01$), and reception ($p<0.01$).

Kelly et al. (2020) [155] studied the use of ACT to improve social support for a veteran with PTSD. The veteran's maladaptive patterns of interpersonal difficulties, feelings of detachment from others, irritability, and avoidance of social situations were explicitly targeted by ACT. He reported significant improvements in social relationships, quality of life, and depressive symptoms after treatment.

Araghi et al. (2020) [156] studied the effectiveness of acceptance and commitment therapy on hopelessness in divorce demanding couples. Beck Hopelessness Inventory was the research instrument used. It was concluded that ACT could reduce hopelessness in divorce demanding couples.

Gul et al. (2020) [157] found that incorporating ACT along with standard treatment for SUD reduced stigma and shame associated with SUD.

Bani et al. (2020) [158] studied the effectiveness of ACT, CBT and reality therapy on coping strategies, quality of life and general health of 60 caregivers of patients with chronic illnesses. All the therapies were found effective for the said variables.

Diabetes patients frequently experience poor mental health, which is often linked to poor physical health outcomes. Ryan et al. (2020) [159] conducted a pilot evaluation of an ACT informed group resilience training programme for diabetes patients. The programme was delivered to 20 people with diabetes in community settings, with 10-weekly sessions (total 18 hours). Questionnaires and pedometers were used to assess participants before and after the intervention. Significant improvements in resilience, psychological flexibility, positive affect, valued living, physical activity and sedentary behaviour were observed, as were significant decreases in depression and stress. Mindfulness, diabetes related distress, and anxiety improved to the point of being statistically significant. Data on feasibility and acceptance revealed high levels of programme engagement and satisfaction, as well as self reported improvements that supported statistically significant changes.

Vilardaga et al. (2020) [160] ACT for symptom management in patients with cancer and found reductions in pain interference, fatigue, psychological distress, and improvements in psychological acceptance and engagement in value-guided activity after treatment.

Arch et al. (2020) [161] studied ACT among anxious and depressed clients with Metastatic Cancer and found it effective and promoting psychosocial and advance care planning among the participants.

Smkhani et al. (2021) [162] concluded that acceptance and commitment based treatment could help reduce hopelessness and death anxiety, and increase resilience in patients with Multiple Sclerosis.

Barnes et al. (2022) [163] showed the effectiveness of ACT in enhancing safety planning in clients undergoing suicidal crisis.

NEED FOR THE PRESENT STUDY

The current study studies the efficacy of ACT on hopelessness, resilience and coping strategies in patients with Alcohol Use Disorder and Opioid Use Disorder. As per the literature reviewed, there is significant data on the efficacy of Acceptance and Commitment

Therapy as a treatment approach for multiple psychiatric disorders including Substance Use Disorders. However, there is still dearth of data when it comes to applicability of ACT to an Indian population. Prevalence of various kinds of substance use has been discussed above. The rapid spread of substance addiction in India across various communities, age groups and gender groups is worrisome, given its adverse impact on physical, mental, emotional, social and financial functioning. This highlights the need to address this hurdle with complete intensity. Various pharmacological and non-pharmacological interventions have been carried out in the field of substance and ACT is another one of these mediations which has shown proven efficacy abroad.

India, being such a diverse country is highly varied in its population throughout various states. With increasing globalization and modernization, accessibility to drugs is no more a difficulty for people regardless of their education, occupation, socio economic status, religion, state, etc. Punjab is also one such Indian state which has witnessed significant spread of substance over the years. According to the Lok Sabha data (2014), 39,064 tonnes of drugs were seized from Punjab, 2nd highest amongst other states. Amphetamine, cannabis plant, cocaine, ephedrine, ganja, hashish, heroin, ketamine, lysergic acid diethylamide (LSD), acetic anhydride, MDMA, methamphetamine, methaqualone (mandrax), morphine, and opium were among the drugs seized. In 2013, Punjab accounted for nearly half of all cases registered in India under the Narcotic Drugs and Psychotropic Substances Act (NDPS), up from 15% in 2009. According to a government report based on surveys, 67 percent of rural households in Punjab have one drug or alcohol addict, and 70 percent of young men are addicted to drugs or alcohol (Kaur, 2017).[164] One of India's most prosperous states, the fertile land of the five rivers and the country's bread basket, is now dealing with a serious problem that has reached almost epidemic proportions. Thus, interventions in the field of substance use in Punjab are the need of the hour.

The researcher belonging to Punjabi culture herself acknowledges the normalisation of certain substances in the state. Alcohol, for example, is an acceptable part of celebrations and festivals for majority of the public. So much so, that it is not looked down upon by the population in comparison to other substances like opioids, cannabis, cocaine, etc. Some people even consider alcohol as a notable symbol of upper socio economic status. This normalisation of certain substances further escalates the issue. There are evident gaps in literature in the use of ACT as a therapy for substance use in India and especially Punjabi population. This study aims to fill these research gaps and contribute to the downturn of substance use in Punjab. If the results turn out to be significant then ACT may become part of regular therapy protocol for substance use across the mental health services rendered in the state.

MATERIALS AND METHODS

SOURCE OF DATA

Study was conducted on patients diagnosed with Substance Use Disorder admitted in Psychiatry Ward at Dayanand Medical College and Hospital, Ludhiana.

SAMPLE COLLECTION

The study included 30 patients diagnosed with substance use disorder (15 patients diagnosed with Alcohol Use Disorder and 15 patients diagnosed with Opioid Use Disorder) admitted in Psychiatry Ward at Dayanand Medical College and Hospital, Ludhiana from 18 to 55 years of age.

RESEARCH DESIGN

Pre-test and post-test design was used for the current study. There were two groups of participants. Both groups were administered a pre-test, received treatment intervention and administered a post test at the end of the intervention.

SAMPLING TYPE

Purposive sampling was used to form sample for data collection. 2 groups of 15 patients each were formed based on the diagnosis of Alcohol Use Disorder or Opioid Use Disorder as per DSM-5.

INCLUSION CRITERIA

1. Patients having a diagnosis of Substance Use Disorder (Alcohol Use Disorder or Opioid Use Disorder) according to DSM-5.
2. Patients between 18 to 55 years of age.
3. Patients with a formal education of at least 8 years.
4. Patients admitted in Psychiatry Ward at Dayanand Medical College and Hospital, Ludhiana.
5. Patients willing to give informed consent.

EXCLUSION CRITERIA

1. Patients having a diagnosis of any other Substance Use Disorder apart from Alcohol Use Disorder and Opioid Use Disorder.
2. Patients diagnosed with psychotic illness.
3. Patients not willing to give informed consent.

METHODOLOGY

The study was conducted on 30 patients from 18 to 55 years of age, diagnosed with Substance Use Disorder (15 patients diagnosed with Alcohol Use Disorder and 15 patients diagnosed with Opioid Use Disorder) admitted in Psychiatry Ward at Dayanand Medical College, Ludhiana undergoing deaddiction treatment. All participants were informed of the study's aims and objectives, as well as the fact that their participation was entirely voluntary. Informed consent was taken from all the participants. They were informed that they had the option to withdraw from the study at any moment. No one was compelled or forced to take part in the study. They were informed that their identities would not be revealed, confidentiality was discussed. They were informed of their right to ask questions at any point during the research. They were also informed of their right to obtain a briefing on the study's findings if they so requested. Socio Demographic Proforma was filled containing the basic information of the subject. They were evaluated for hopelessness using Beck Hopelessness Scale, resilience using Brief Resilience Scale and coping strategies using Brief COPE prior to the ACT intervention. Each participant underwent five sessions of Acceptance and Commitment Therapy. One ACT session was conducted per day for five consecutive days. The duration of the ACT sessions ranged from 50-60 min each. The ACT sessions were delivered via individual therapy. After completion of the 5^{th} ACT session, participants were revaluated for hopelessness, resilience and coping strategies using the above mentioned tools.

TOOLS:

1. Socio-Demographic Proforma
2. Beck Hopelessness Scale
3. Brief Resilience Scale
4. Brief COPE

1. **Socio demographic proforma** includes the name of the patient, age, gender, MRD number, marital status, educational qualification, occupation, background, contact number, family type, education and occupation of the head of the family, family income, socio economic status, diagnosis; scores on Beck Hopelessness Scale, Brief Resilience Scale and Brief COPE. Socio economic status was calculated using the updated Modified Kuppuswamy Socio-economic Status Scale. [165]

2. **Beck Hopelessness Scale** (**BHS)** provides a measure of one's negative expectations regarding the future. It was given by Dr Aaron T. Beck and consists of 20 true-false items. It is designed for adults, age 17–80. It measures the extent of the respondent's negative attitudes, or pessimism, about the future. The scale has a good reliability (test-retest, r = .81) and a good internal consistency (alpha = .97) for depressive subjects and alpha = .79 for control subjects). [166] It also shows a good concurrent validity with other scales assessing depressive cognitions, the automatic thoughts questionnaire, the dysfunctional attitudes scale (form A) and a scale assessing the suicidal risk (ERSD).

   Scoring: The total BHS score is a sum of item responses and ranges from 0 to 20. Higher scores reflect higher levels of hopelessness. Scores ranging from: 0 to 3 are considered within the normal range, 4 to 8 identify mild hopelessness, 9 to 14 identify moderate hopelessness, and scores greater than 14 identify severe hopelessness. [167]

3. **Brief Resilience Scale** is a measure of resilience given by Smith and colleagues. [168] It assesses perceived ability to bounce back or recover from stress. It consists of six statements for individuals to agree or disagree with. The scale has good internal consistency, with Cronbach's alpha ranging from .80–.9. It gave a test-retest reliability (ICC) of .69 for one month in 48 participants from Sample 2 and .62 for three months in 61 participants from Sample 3. It was positively correlated with the resilience measures, optimism, and purpose in life, and negatively correlated with pessimism and alexithymia. It was negatively related to perceived stress, anxiety, depression, negative affect, and physical symptoms.

   Scoring: Items 1, 3, and 5 are positively worded, and items 2, 4, and 6 are negatively worded. The BRS is scored by reverse coding items 2, 4, and 6 and finding the mean of the six items. Scores of 1.00 - 2.99 indicate low resilience, 3.00 - 4.30 indicate normal resilience, 4.31 - 5.00 indicate high resilience.

4. **Brief COPE** is an abbreviated version of the 60 item COPE Inventory by Charles S. Carver. [169] The items deal with ways one has been coping with the stress in one's life. The Brief COPE consists of 28 items. It measures the following subscales [170]:

- **Self-distraction:** Self-distraction is defined as diverting one's attention away from a stressful occurrence by engaging in activities such as watching television, exercising, reading, or indulging in other pleasure hobbies. Without immediately confronting the circumstance or attempting to fix the problem, the person copes.
- **Active coping**: Active coping is the practise of taking proactive steps to alleviate, avoid, or mitigate the stressor's consequences. Active coping entails taking direct action, increasing one's efforts, and attempting to carry out a coping strategy step by step.
- **Denial**: Denial is the refusal to believe that the stressor exists or trying to act as though the stressor is not real.

- **Substance use:** Turning to the use of alcohol and other substances in the face of adversity to avoid having to directly and consciously deal with the stressor.
- **Use of emotional support**: Seeking social support in the form of moral support, sympathy, or understanding from others for emotional reasons.
- **Use of instrumental support**: Seeking social support for practical and instrumental reasons includes seeking advice, help, or knowledge.
- **Behavioral disengagement**: Lowering one's effort to deal with the stressor, or even abandoning attempts to achieve goals that the stressor is interfering with. It is most likely to occur when people anticipate negative coping outcomes and has been associated with helplessness.
- **Venting**: The inclination to focus on and ventilate whatever sorrow or upset one is experiencing is known as venting.
- **Positive reframing**: Rephrasing a stressful transaction in a positive light. The goal is to help people manage their distressing emotions rather than the stressor itself.
- **Planning**: Planning entails considering how to cope with a stressful situation. Coming up with action methods, thinking about what steps to take, and how to best tackle the situation are all part of the planning process.
- **Humor:** The tendency to provoke laughter or provide amusement, assists people in reassessing difficult experiences in a positive light by looking for the silver lining.
- **Acceptance:** A person who accepts the reality of a stressful circumstance and hence appears to be engaged in attempting to deal with it. Acceptance is essential in situations where the stressor is something that must be adjusted to, as opposed to situations where the stressor can be easily changed.
- **Religion**: The tendency to turn to religion in times of stress.
- **Self-blame**: The belief that one's experiences are a direct outcome of one's actions or character.

Cronbach's alpha of original subscales ranged from 0.50 (venting) to 0.90 (substance use).

Scoring: It is scored on a 4-point scale from 1, I haven't been doing this at all to 4, I've been doing this a lot. Maximum score on each subscale is 8 with higher scores indicating higher likelihood of usage of that specific coping skill.

INTERVENTION:

ACCEPTANCE AND COMMITMENT THERAPY (ACT)

Acceptance and Commitment Therapy (ACT) created by Dr Steven C. Hayes and further simplified by Dr Russ Harris is a mindfulness-based, values- directed behavioural therapy. It is based upon a behavioural theory of cognition called the Relational Frame Theory (RFT). The aim of ACT is to maximise human potential for a rich and meaningful life while effectively handling pain that inevitably goes with it. This is done by focusing on the six core therapeutic processes in ACT: Contacting the present moment, defusion, acceptance, self as context, values, committed action. This ACT Hexaflex contributes to Psychological flexibility, which is the ability to act mindfully, guided by our values. The six core processes can be lumped into the ACT Triflex- Be present, Open up, Do what matters. The opposite of Psychological flexibility is Psychological Rigidity. The six core processes of Psychological Rigidity are fusion, experiential avoidance, inflexible attention, remoteness from values, unworkable action, fusion with self concept.

ACT INTERVENTION PROCEDURE

In the current study, the researcher conducted five ACT sessions based on the mentioned six core processes of psychological flexibility in order to help the participants build better resilience, coping strategies and hope for the future thereby reducing chances of substance relapse. Each session involved use of mindfulness exercises along with teaching effective problem solving skills to the participants.

An introductory session was followed by five ACT sessions (each lasting about an hour), with each session focusing on ACT model's core components. A post test session was conducted at the end. The session plan was adopted from Individual Therapy protocol given my Dr Steven C. Hayes for substance abusing clients. [171] Few modifications and simplifications were made accordingly to suit Indian population and the requirements of the study and researcher. Core concepts discussed during each session were rediscussed and strengthened throughout subsequent ACT sessions.

The data was initially collected from 33 participants. However, 3 participants dropped out of the study as their number of ACT sessions could not be completed due to early discharge. The remaining 30 participants were retained in the study.

SESSION PLAN:

Pre test phase- Introductory session:

- Participants were explained the aims and objectives of the study.
- Informed consent was taken.
- Participant were informed regarding the voluntary nature of the study and right to withdraw from the study at any given point of time. They were told about the future implications of the study and their right to ask for results of the study if they wished to. Participants were also informed regarding the active nature of the intervention to be used in the study.
- Researcher focused on building rapport with the participants.
- Socio demographic Proforma was filled.
- Detailed case history of the participants with details of substances used, first intake, quantity, frequency, modes of administration, withdrawal symptoms, change in use pattern, treatment history, family history of substance use, triggers, etc was taken.
- They were further evaluated on hopelessness using Beck Hopelessness Scale, resilience using Brief Resilience Scale and coping strategies using Brief COPE.

- **Mindful minute exercise** (1 minute): Participants were instructed to sit comfortably in their chairs and put their hands on their bellies. This was followed by taking few slow, deep breaths upto the count of 4. They were instructed to notice their belly move out when they breathed in and notice their belly move in when they breathed out. Attention was to be focused on the belly movement. In case of any thought, it was simply noticed as a thought as if it were a cloud in the sky. The thought would further pass by, just like a cloud. No matter the number of thoughts coming in, the participants had to just notice them and then bring their attention back to their breath and belly movement.

SESSION 1 [171]

- Mindful minute exercise (1 minute) was practiced.
- The researcher introduced the participants to the basics of ACT, mindfulness and the 6 core processes in simple layman terms in order to explain how it would help them not go back to substance use. The importance of experiential exercises and practice skills throughout the intervention process was explained.
- Potential positive reinforcers to encourage the participants to attend the sessions were explored. The researcher's one to one presence, encouragement, empathy and praise proved to be a considerable reinforcement for the attendees. Caution was taken that the researcher does not positively reinforce maladaptive behaviour.
- **The Inventory Metaphor:** Complete detail of substance use was taken in a non judgemental manner, similar to how a business begins with taking entire detailed account of the inventory in stock (what is on the shelf, what is kept in the back rooms, etc) before carrying forward any function. Participants' attempts to change patterns of substance use (choice of substance, mode of administration, quantity, frequency, etc.) over the years were explored in detail. Associated triggers, motivations, precipitating factors and maintaining factors were enlisted.
- **Cost or impact** of the substance use on various realms of the participants' life- finance, health, family, employment, education, friends, legalities, etc was explored. This was done to make the

participants come in contact with the damage cause to them via substance and how all of this violated their personal values in life was also thrown light on.

- Participants were encouraged to elaborate on the above using concrete personal examples. Their emotional and behavioural reactions to the questions and instances asked for, throughout the interview were noted.
- The participants were thanked for their participation and sincere disclosure of personal information.
- Mindful minute exercise (1 minute) was practiced.
- **Homework:** Participants were asked to list other overt and covert costs of substance use in their lives that they might have missed through the session and reflect the impact it left on them and those surrounding them.

SESSION 2 [171]

- Mindful minute exercise (1 minute) was practiced.
- Previous ACT session was overviewed and summarised. Any reflections that the participants had regarding the previous session were discussed.
- The session focussed on use of various **Avoidance strategies** (substance, isolation, distraction, violence, social withdrawal, anger outburst, etc.) by the participants. What did these strategies help the participants avoid and why, consequences of not being able to avoid that stimulus was explored. They may try to eliminate emotional uneasiness, negative thoughts, interpersonal conflict and other adverse psychological experiences using these avoidance strategies. These strategies were linked to how they furthered the participants' problems instead of alleviating them and hence continued the cycle of substance use, depression, anxiety, etc.
- **Workability** of these avoidance strategies from an external perspective (researcher's), especially involving substance use was discussed.
- **The Rock Climbing Metaphor**: The researcher confronted the participants on the workability of their substance use strategies. This

was similar to how a person watching a mountain climber work up a cliff from afar can better guide him in which direction to go instead of the mountain climber himself due to his limited vision through the climb.

- **Creative Hopelessness**: Participants' attempts to avoid psychological discomfort and strengthen their control over their emotions were confronted in light of avoidance strategies. The more they tried to get rid of their thoughts and feelings by manipulating them, the more they were later haunted by them, continuing the vicious cycle. How their escape actually took them towards being stuck in their own trap was discussed. Thus, "maybe the so-called solutions were actually part of the problem". [171]
- **Quick sand metaphor**: The more one struggles in quicksand, the more one sinks. But if one stops struggling, one floats. Thus, the real problem is not the quick sand, but the coping strategy used. Reframing it further, the real problem is not the uneasy emotional state but the avoidance strategy used.
- **'If you aren't willing to have it, you've got it'***:* Participants were explained how having a back up plan for substance use (keeping a quarter of alcohol hidden in the cabinet, just in case one isn't able to tolerate the withdrawal symptoms or anxiety or the cravings) was actually more likely to reinforce cravings for the substance. For example, it's easier to detoxify at a deaddiction centre than home as one knows that one can get access to substance at home, if one wishes to but the same is not possible in the case of deaddiction facility, thereby reducing the cravings. Thus, the attempt to control cravings, furthers it; the perceived control is the problem.
- *(Optional)* **The Elephant metaphor:** When asked to not think about an Elephant for one minute, one cannot help but actually think about it. Thus, in order to not think about a thought or memory, one actually has to think about it. Thus, control is futile. When one tries to control one's urges (for substance), often one ultimately gives in to those urges as that is what occupies one's mind throughout that time. Thus, focus was slowly brought from avoidance, emotional control and creative

hopelessness towards the pursuit of acceptance of one's private experiences.

- The participants were thanked for their participation and sincere disclosure of personal information.
- Mindful minute exercise (1 minute) was practiced.
- **Homework**: The participants were asked to note other patterns of frequently used avoidance strategies and assess their workability to ultimately understand 'Control is the problem, not the solution'. The futility of the struggle for emotional control was brought about.

SESSION 3 [171]

- Mindful minute exercise (1 minute) was practiced.
- Previous ACT session was overviewed and summarised. Any reflections that the participants had regarding the previous session were discussed.
- **Verbalization and literalization**: Focus was to weaken the excesses of literal language and the implicit assumptions and agendas that it contains. In simple words, cognitively defuse with one's thought and conventional programming, view the thought objectively as just a thought instead of accepting it as a conclusion about one, thereby distinguishing the verbal content from the person. The dark side of language was discussed where we often believe feelings and thoughts literally as what they say they are. Participants were taught to discern the difference between them and their thoughts/feelings, and recognize when they were buying into their set programming. This helps in cognitive defusion and builds path for acceptance.
- **"I" statements** were encouraged. The use of **"and" instead of "but"** was encouraged because "but" says that two reactions that both exist cannot co-exist.
- Verbal convention of labelling thoughts, feelings, physiological sensations, memories and evaluations as such was encouraged to distance participants from their unworkable thoughts. Thus, the focus was on doing and having, not being.

- For example, “No one could live like I do. I am too anxious. It is miserable." Reformulated client verbalization: "I'm having the thought that no one could live like I do. I have feelings of anxiety and I have the thought that they are too much. I evaluate it as miserable."
- The participants were thanked for their participation and sincere disclosure of personal information.
- Mindful minute exercise (1 minute) was practiced.
- **Homework:** Participants were asked to identify the mental and verbal programming that they struggled with and practice the above taught verbal convention to reformulate them.

SESSION 4 [171]

- Mindful minute exercise (1 minute) was practiced.
- Previous ACT session was overviewed and summarised. Any reflections that the participants had regarding the previous session were discussed.
- **Willingness**: Willingness to feel, think and experience- thoughts, feelings and evaluations as they are and not as they say they are, while focusing on its workability during the situation. Willingness was clarified as an action, a choice, a process, and finally a commitment and not an outcome. Willingness to experience discomfort broken into smaller components, to be looked at separately one by one; instead of experiencing it all at once was also stated.
- **Values**: Participants’ essential life values and their hierarchy was explored in detail. These included what the participants wanted to be known for or what they couldn’t compromise on. How these were compromised through their substance use journey, through their avoidance strategies was also discussed. Other barriers to these values were listed. Acceptance of negatively evaluated thoughts, feelings, memories, etc was done in accordance with the participants’ values.
- **Map making metaphor**: Mapping of past (where they had been), present (where they are now) and future (where they would like to be) in the context of participants’ values was done. What the participants wished to move towards in terms of interpersonal relations, education,

employment, family, friendship, finance, recreation, spirituality, health, etc keeping in touch with their main values was mapped out. Values personally relevant to them and not those valued due to their prestige value and social acceptability were listed.

- The participants were thanked for their participation and sincere disclosure of personal information.
- Mindful minute exercise (1 minute) was practiced.
- Homework: Participants were asked to write about 1 domain of their lives (adversely affected by substance use) that they would like to bring a change in and how they would commit to that change while keeping in touch with their values and acceptance of private psychological experiences.

SESSION 5 [171]

- Mindful minute exercise (1 minute) was practiced.
- Previous ACT session was overviewed and summarised. Any reflections that the participants had regarding the previous session were discussed.
- The session was focussed on taking **committed action** to live a values-guided fulfilling and meaningful life. The willingness to make a commitment despite the consequences, despite not being able to commit to it sometimes and experience negative emotional stimuli as a result, was centred on. Commitment was clarified as a process and an acknowledgement towards heading in a direction, and not an outcome.
- **Accepting one's responsibility** for an action instead of blaming one's self was focused on to move towards committed behaviour change without any sense of guilt that might push one into a self-defeating cycle.
- **Role reversal**: The researcher acted as the participant who did not take committed action as was promised in the previous session, and shared the disappointment experienced for the same. The participant acted as the researcher and response given to the situation was noted. The exercise was done to develop empathy for self.

- Letting go of the struggle of always being right was discussed as a way to move towards forgiveness and self-acceptance.
- All the core concepts covered in previous sessions were brushed up and summarised for the participants to have a clear understanding of how to implement them together in their lives.
- The participants were thanked for their participation and sincere disclosure of personal information.
- Mindful minute exercise (1 minute) was practiced.
- Homework: Participants were asked to daily continue with all the practices taught throughout the five sessions.

Post test phase:

Post the competition of the 5th session, the participants were revaluated for hopelessness, resilience and coping strategies. They were thanked for their active participation in the study. Any doubts that they may have had through the study were cleared. They were informed about their right to obtain results of the study, should they ask for it.

STATISTICAL ANALYSIS

Data was described in terms of mean ± standard deviation (± SD), frequencies (number of cases) and relative frequencies (percentages). Comparison of categorical data was done using Chi-square. Comparison of quantitative variables within the study groups was done using Paired t-test and Wilcoxon rank test for independent samples for parametric and non-parametric data respectively. Comparison of quantitative variables between the study groups was done using Student t-test and Mann- Whitney test for independent samples for parametric and non-parametric data respectively. A probability value (p value) less than 0.05 was considered statistically significant. All statistical calculations were done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

OBSERVATIONS AND RESULTS

Table 1: Mean Age of participants in Alcohol and Opioid groups.

	Alcohol		**Opioid**		**t**	**p-value**
	Mean	SD	Mean	SD		
Age	39.60	9.70	38.80	8.12	0.245	NS (0.05)

(NS: Not Significant)

Figure 1: Mean Age of participants in Alcohol and Opioid groups.

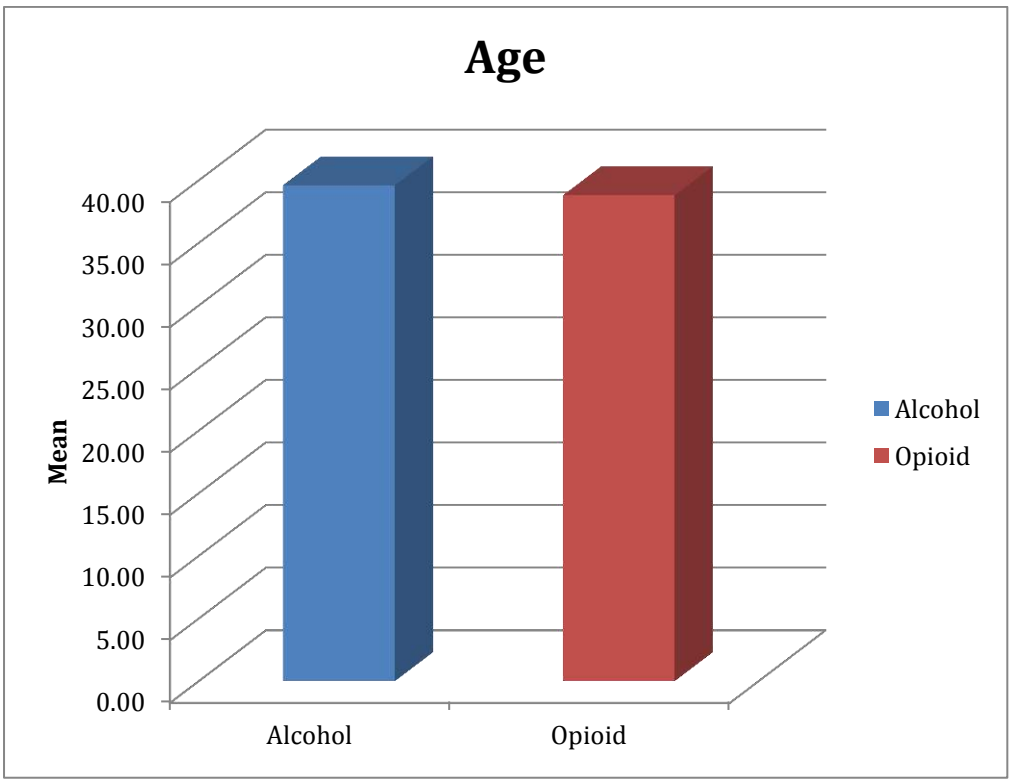


Table 2: Gender distribution among participants in Alcohol and Opioid groups.

		Alcohol		Opioid		Total
		No. of cases	%age	No. of cases	%age	
Gender	Male	15	100.0%	15	100.0%	30
Total		15	100.0%	15	100.0%	30

Figure 2: Gender distribution of participants in Alcohol and Opioid groups.

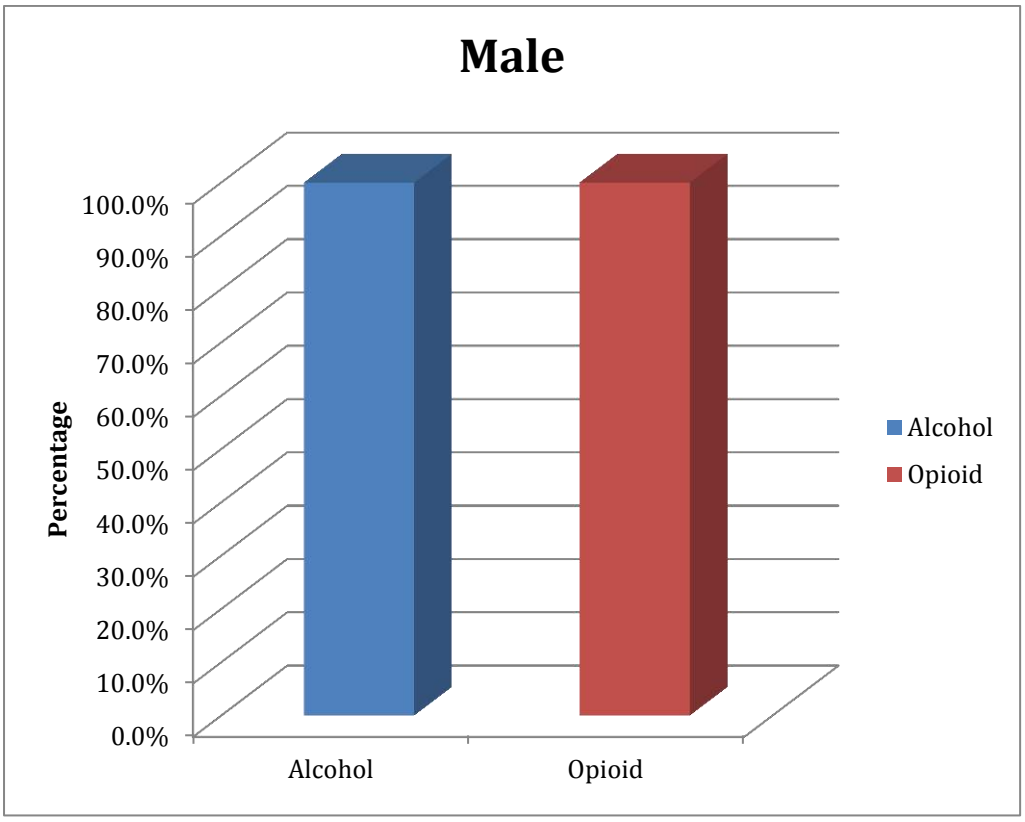


Table 3: Distribution of Marital Status in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
Marital Status	Unmarried	4	26.7%	0	0.0%	4	6.667	3	NS (0.05)
	Married	10	66.7%	14	93.3%	24			
	Separated	0	0.0%	1	6.7%	1			
	Divorced	1	6.7%	0	0.0%	1			
Total		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 3: Distribution of Marital Status in Alcohol and Opioid groups.

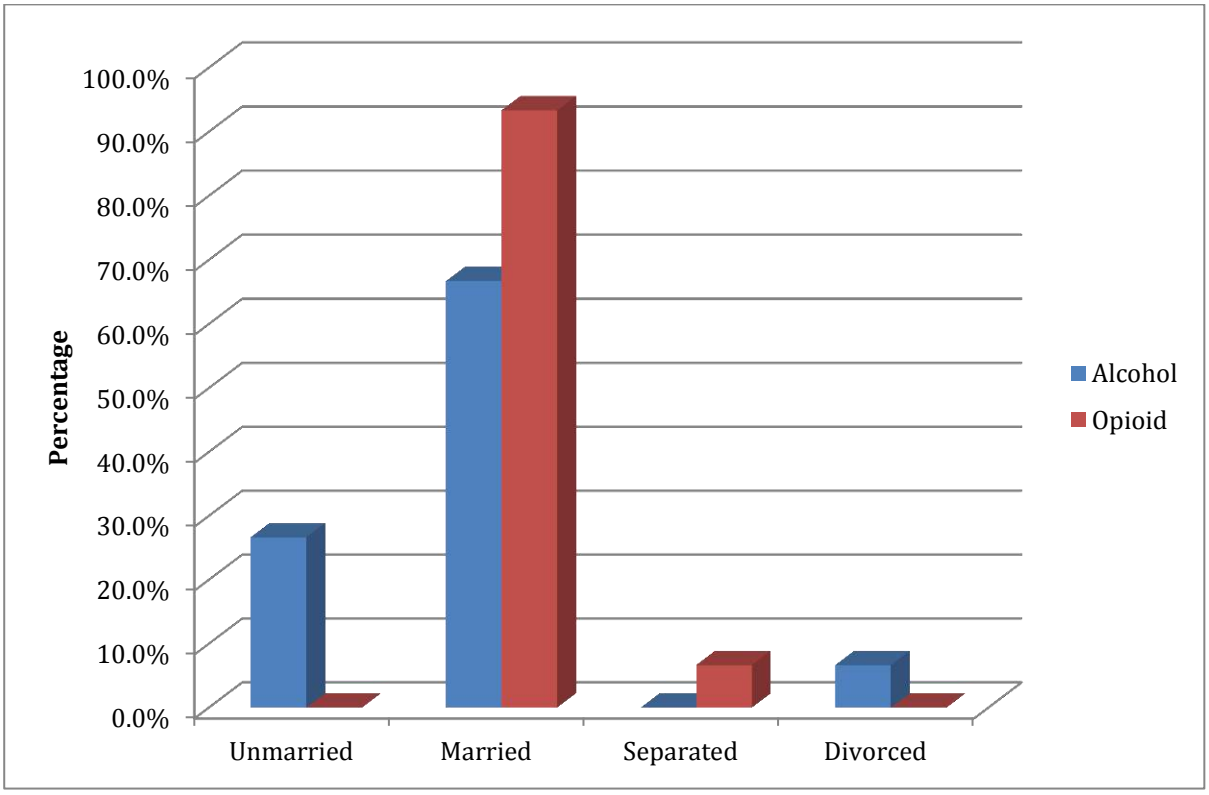


Table 4: Distribution of Educational Qualification in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
Education	8th	2	13.3%	2	13.3%	4	3.758	6	NS (0.05)
	10th	2	13.3%	1	6.7%	3			
	12th	6	40.0%	5	33.3%	11			
	Diploma	1	6.7%	0	0.0%	1			
	Graduate	3	20.0%	6	40.0%	9			
	Post Graduate	1	6.7%	1	6.7%	2			
		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 4: Distribution of Educational Qualification in Alcohol and Opioid groups.

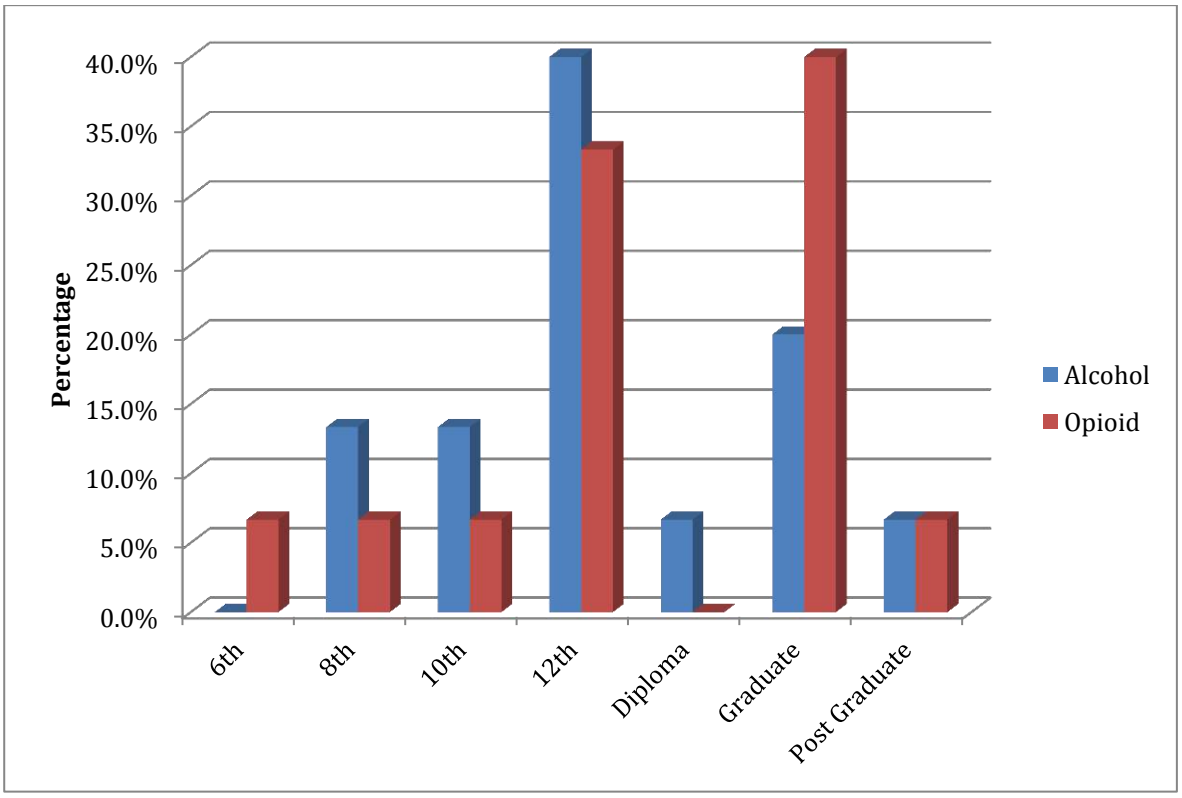


Table 5: Distribution of Occupation in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
Occupation	Professional	3	20.0%	1	6.7%	4	3.202	5	NS (0.05)
	Farmer	4	26.7%	5	33.3%	9			
	Semi Skilled	5	33.3%	6	40.0%	11			
	Shopkeeper	1	6.7%	0	0.0%	1			
	Student	0	0.0%	1	6.7%	1			
	Unemployed	2	13.3%	2	13.3%	4			
Total		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 5: Distribution of Occupation in Alcohol and Opioid groups.

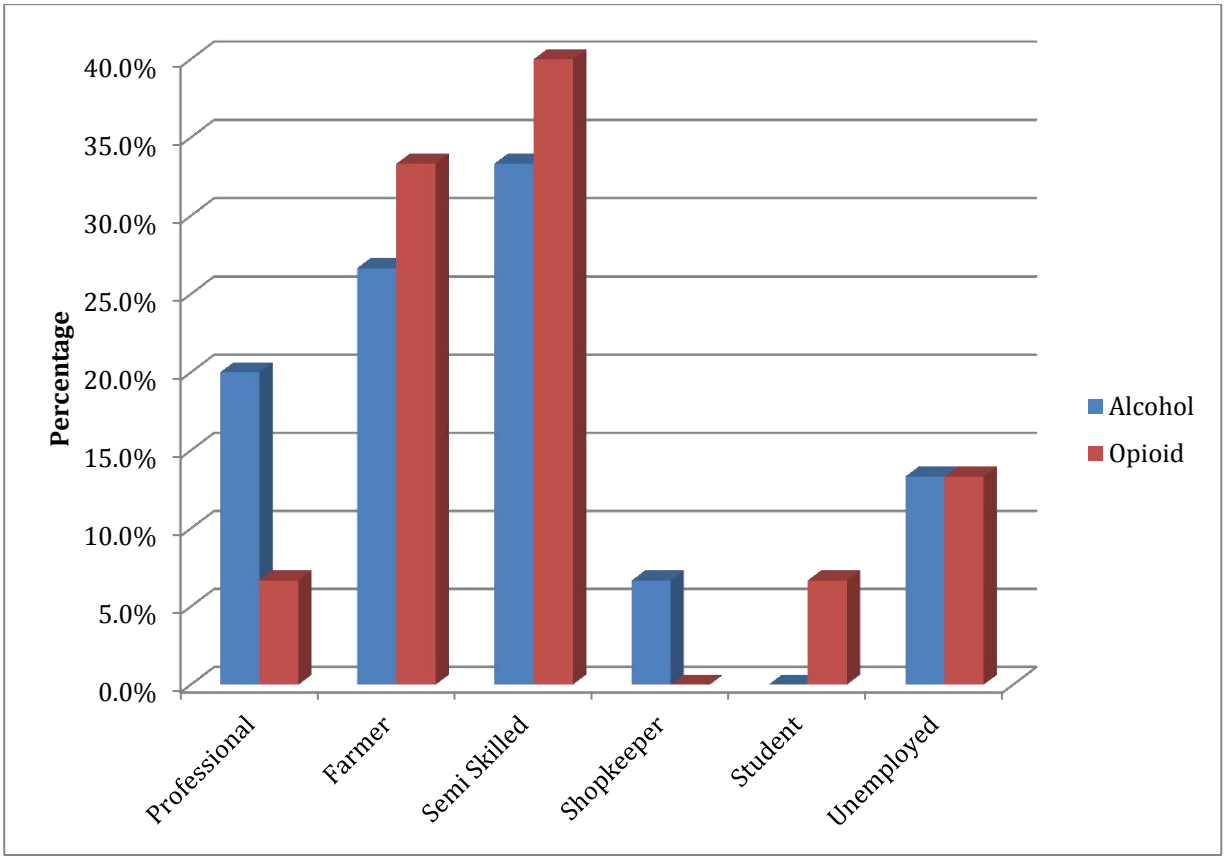


Table 6: Distribution of Background in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
Background	Rural	9	60.0%	7	46.7%	16	0.536	1	NS (0.05)
	Urban	6	40.0%	8	53.3%	14			
Total		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 6: Distribution of Background in Alcohol and Opioid groups.

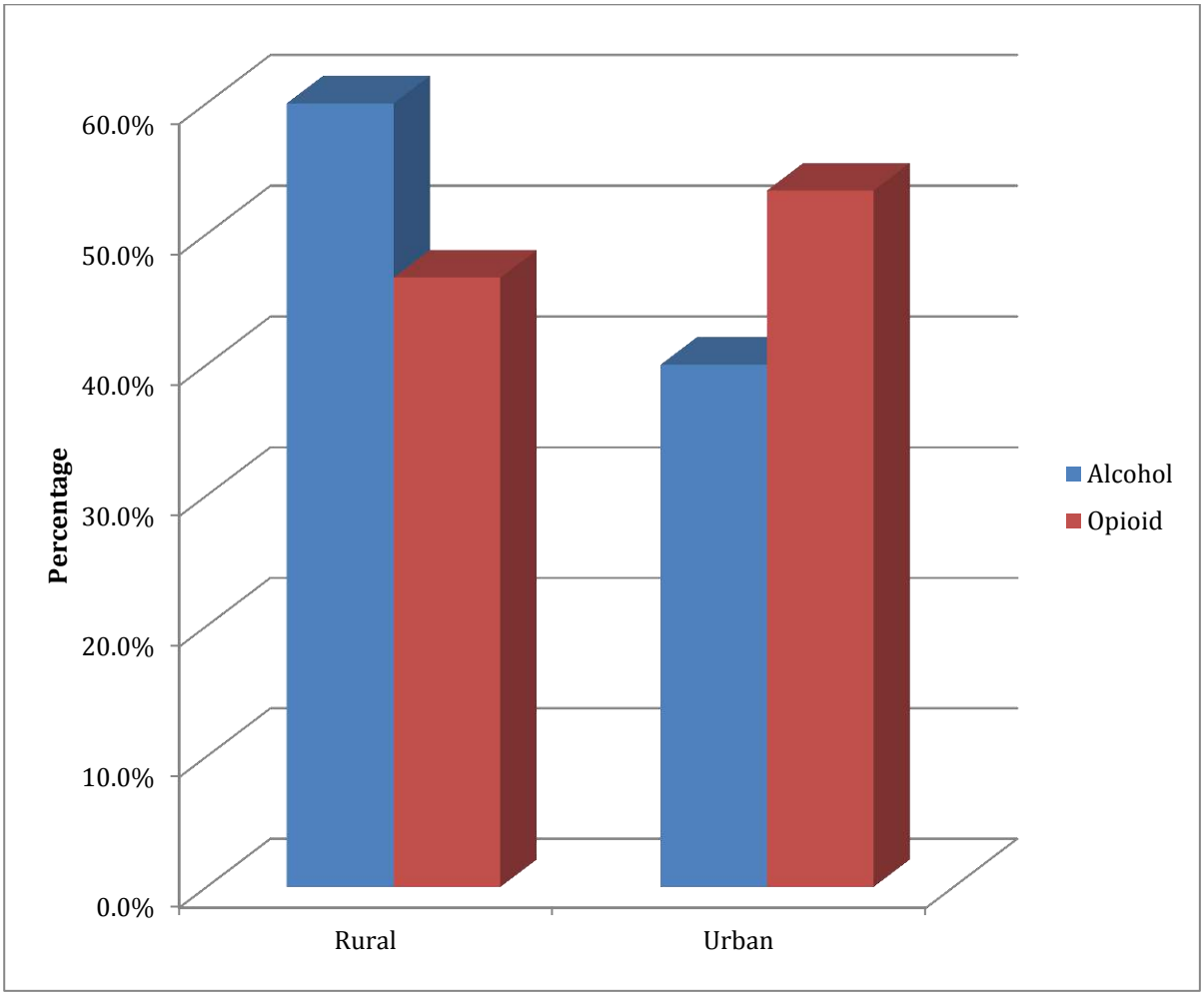


Table 7: Distribution of Family Type in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
	Nuclear	8	53.3%	5	33.3%	13	2.226	3	NS (0.05)
Family Type	Extended	4	26.7%	8	53.3%	12			
	Joint	3	20.0%	2	13.3%	5			
Total		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 7: Distribution of Family Type in Alcohol and Opioid groups.

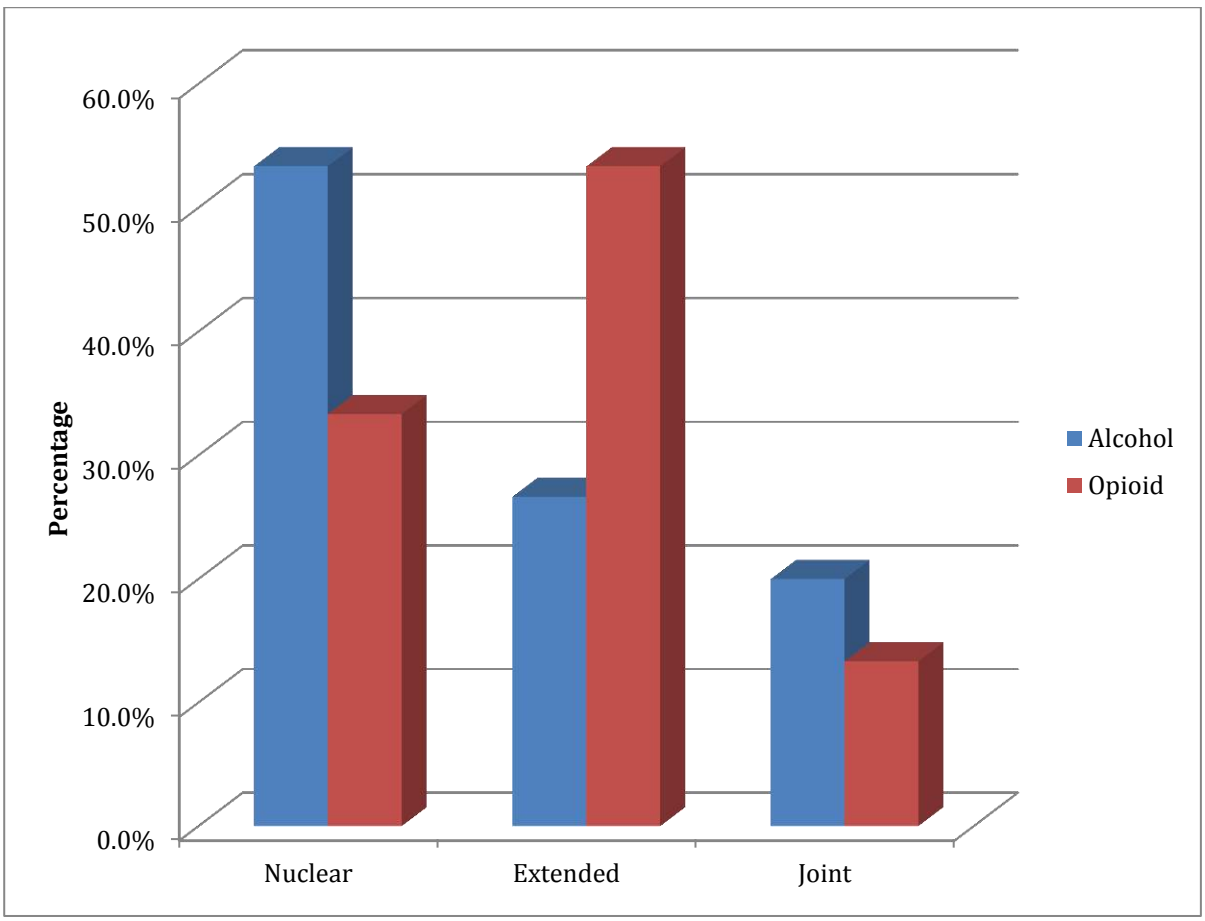


Table 8: Distribution of Socio Economic Status in Alcohol and Opioid groups.

		Alcohol		Opioid		Total	Chi-square value	df	p-value
		No. of cases	%age	No. of cases	%age				
Socio Economic Status	Lower	0	0.0%	1	6.7%	1	4.068	4	NS (0.05)
	Upper Lower	0	0.0%	1	6.7%	1			
	Lower Middle	7	46.7%	4	26.7%	11			
	Upper Middle	7	46.7%	9	60.0%	16			
	Upper	1	6.7%	0	0.0%	1			
Total		15	100.0%	15	100.0%	30			

(NS: Not Significant)

Figure 8: Distribution of Socio Economic Status in Alcohol and Opioid groups.

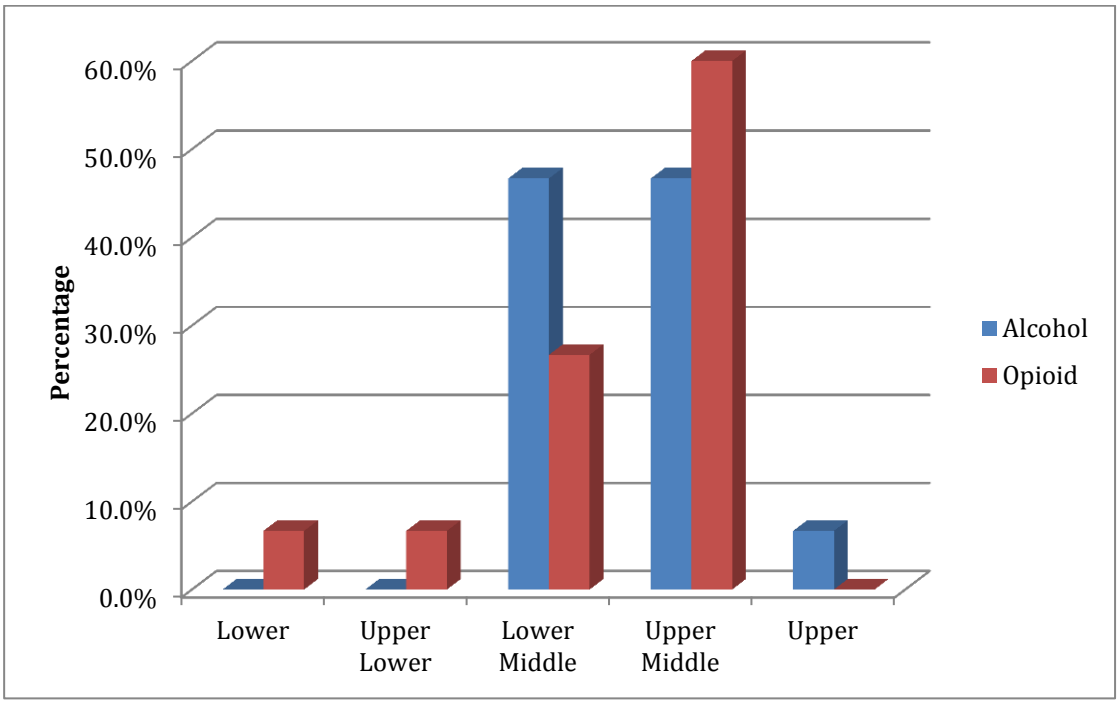


Table 9: Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Alcohol group.

Alcohol	Pre		Post		Z	df	p-value	Difference	
	Mean	SD	Mean	SD				Mean	SD
BHS	12.73	5.61	8.40	4.48	-3.423	14	0.01	4.33	1.76
BRS	1.95	0.67	3.28	0.77	-3.420	14	0.01	-1.33	0.50
SD	4.53	1.30	4.47	0.99	-0.302	14	NS (0.05)	0.07	0.88
AC	3.53	1.13	5.87	0.99	-3.477	14	0.01	-2.33	0.82
D	2.13	0.35	2.20	0.41	-0.447	14	NS (0.05)	-0.07	0.59
SU	8.00	0.00	3.47	1.30	-3.439	14	0.01	4.53	1.30
ES	3.93	0.96	5.40	0.83	-3.372	14	0.01	-1.47	0.74
IS	4.07	1.33	5.00	1.13	-3.276	14	0.01	-0.93	0.59
BD	5.20	2.18	3.13	1.19	-3.084	14	0.01	2.07	1.49
V	3.87	1.06	4.60	0.63	-2.495	14	0.01	-0.73	0.88
PR	3.00	1.56	4.53	1.19	-3.275	14	0.01	-1.53	0.83
Pl	3.60	1.18	5.80	0.94	-3.332	14	0.01	-2.20	1.21
H	2.27	0.80	3.20	0.68	-3.500	14	0.01	-0.93	0.46
Acc	4.27	1.03	5.40	1.06	-3.354	14	0.01	-1.13	0.74
Rel	5.00	1.73	5.33	1.40	-1.667	14	NS (0.05)	-0.33	0.72
SB	6.07	1.98	3.87	1.19	-3.198	14	0.01	2.20	1.47

(BHS: Hopelessness measured on Beck Hopelessness Scale, BRS: Resilience measured on Brief Resilience Scale, SD: Self Distraction, AC: Active Coping, D: Denial, SU: Substance Use, ES: Emotional Support, IS: Instrumental Support, BD: Behavioural Disengagement, V: Venting, PR: Positive Reframing, Pl: Planning, H: Humour, Acc: Acceptance, Rel: Religion, SB: Self Blame, NS: Not Significant)

Table 10: Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Opioid group.

Opioid	Pre		Post		Z	df	p-value	Difference	
	Mean	SD	Mean	SD				Mean	SD
BHS	11.80	5.12	7.00	3.40	-3.304	14	0.01	4.80	2.68
BRS	2.21	0.83	3.74	0.58	-3.411	14	0.01	-1.53	0.54
SD	6.07	1.62	4.67	0.98	-2.986	14	0.01	1.40	1.24
AC	3.80	1.66	6.27	1.39	-3.354	14	0.01	-2.47	1.30
D	2.60	1.68	2.40	0.74	-0.378	14	NS (0.05)	0.20	1.15
SU	8.00	0.00	3.27	0.88	-3.449	14	0.01	4.73	0.88
ES	3.93	1.33	5.27	0.59	-3.002	14	0.01	-1.33	1.18
IS	3.67	1.35	4.80	0.86	-2.877	14	0.01	-1.13	1.13
BD	4.53	2.29	2.93	0.88	-2.699	14	0.01	1.60	1.72
V	3.53	1.13	4.67	0.49	-2.942	14	0.01	-1.13	1.06
PR	2.87	1.36	4.73	1.16	-3.352	14	0.01	-1.87	0.99
Pl	3.13	1.19	5.60	1.06	-3.436	14	0.01	-2.47	1.36
H	2.07	0.26	2.87	0.64	-2.972	14	0.01	-0.80	0.68
Acc	4.67	1.23	6.00	0.76	-3.025	14	0.01	-1.33	0.98
Rel	4.27	1.94	4.67	1.54	-1.897	14	NS (0.05)	-0.40	0.74
SB	6.40	1.50	3.93	0.80	-3.316	14	0.01	2.47	1.46

(BHS: Hopelessness measured on Beck Hopelessness Scale, BRS: Resilience measured on Brief Resilience Scale, SD: Self Distraction, AC: Active Coping, D: Denial, SU: Substance Use, ES: Emotional Support, IS: Instrumental Support, BD: Behavioural Disengagement, V: Venting, PR: Positive Reframing, Pl: Planning, H: Humour, Acc: Acceptance, Rel: Religion, SB: Self Blame, NS: Not Significant)

Figure 9: Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Alcohol group.

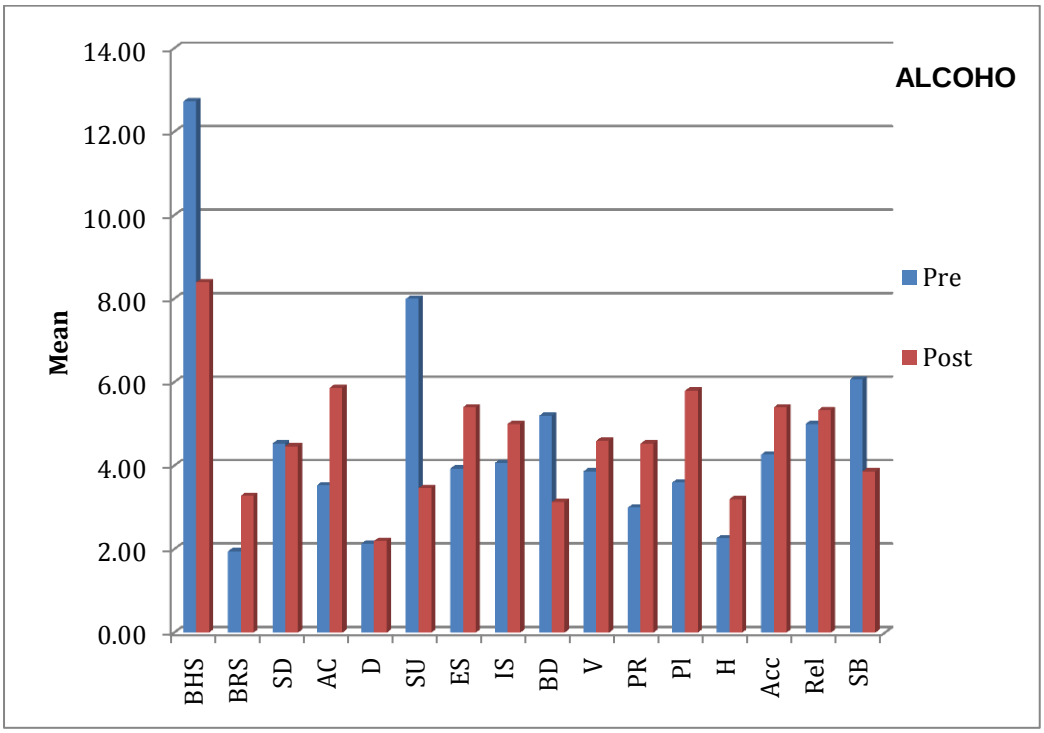


Figure 10: Distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Opioid group.

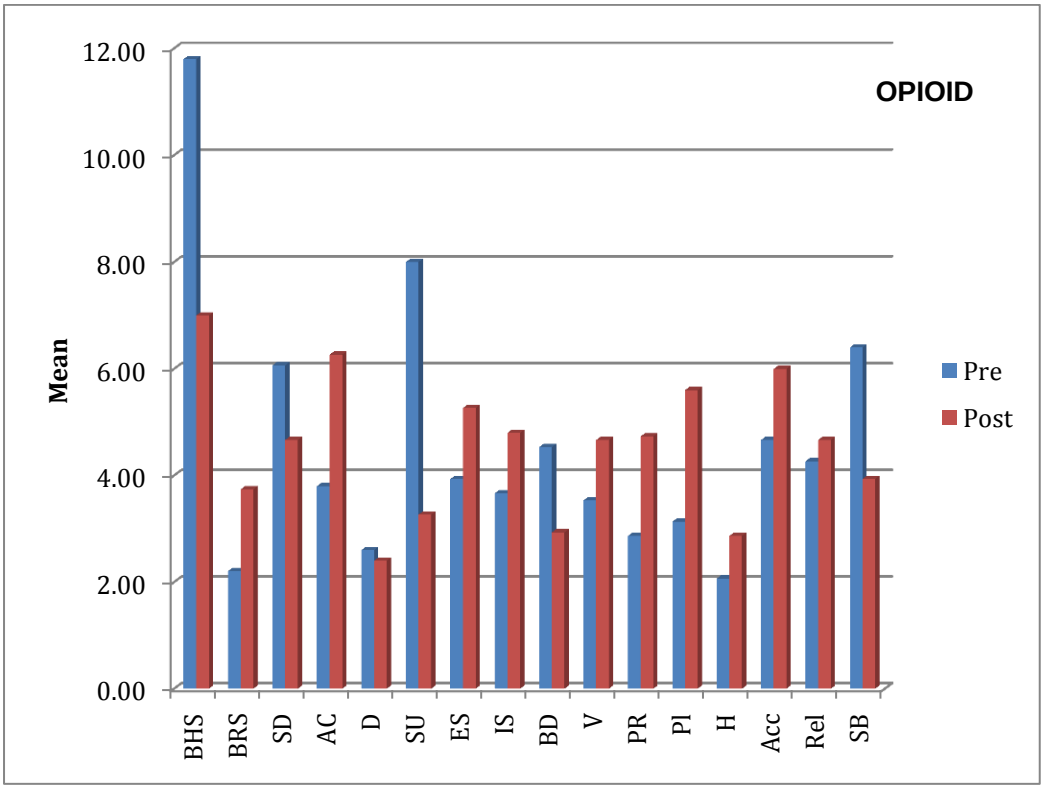


Table 11: Comparison of Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups.

	Alcohol		Opioid		t	df	p-value
	Mean	SD	Mean	SD			
BHS Pre	12.73	5.61	11.80	5.12	0.476	29	NS (0.05)
BHS Post	8.40	4.48	7.00	3.40	0.963	29	NS (0.05)
BHS	4.33	1.76	4.80	2.68	-0.564	29	NS (0.05)

(BHS: Hopelessness measured on Beck Hopelessness Scale, NS: Not Significant)

Figure 11: Comparison of Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups.

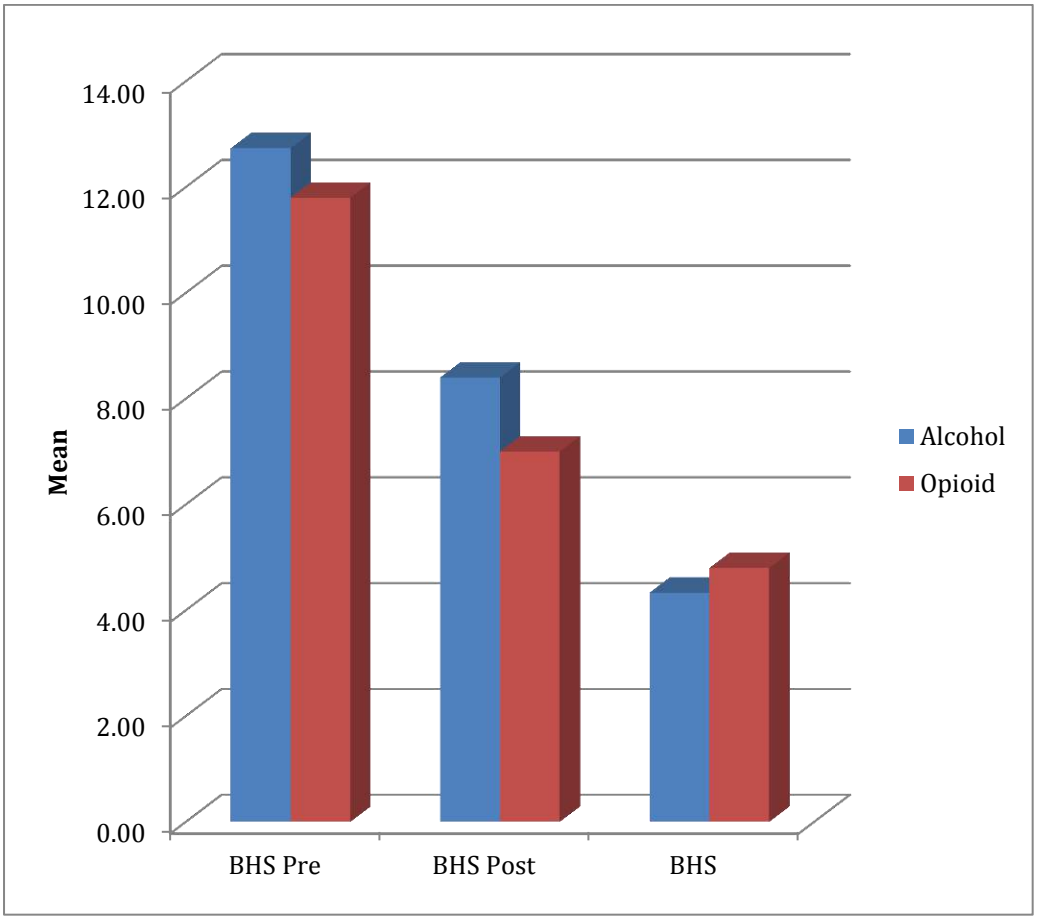


Table 12: Comparison of Pre and Post intervention scores on Resilience in Alcohol and Opioid groups.

	Alcohol		Opioid		t	df	p-value
	Mean	SD	Mean	SD			
BRS Pre	1.95	0.67	2.21	0.83	-0.919	29	NS (0.05)
BRS Post	3.28	0.77	3.74	0.58	-1.852	29	NS (0.05)
BRS	-1.33	0.50	-1.53	0.54	1.086	29	NS (0.05)

(BRS: Resilience measured on Brief Resilience Scale, NS: Not Significant)

Figure 12: Comparison of Pre and Post intervention scores on Resilience in Alcohol and Opioid groups.

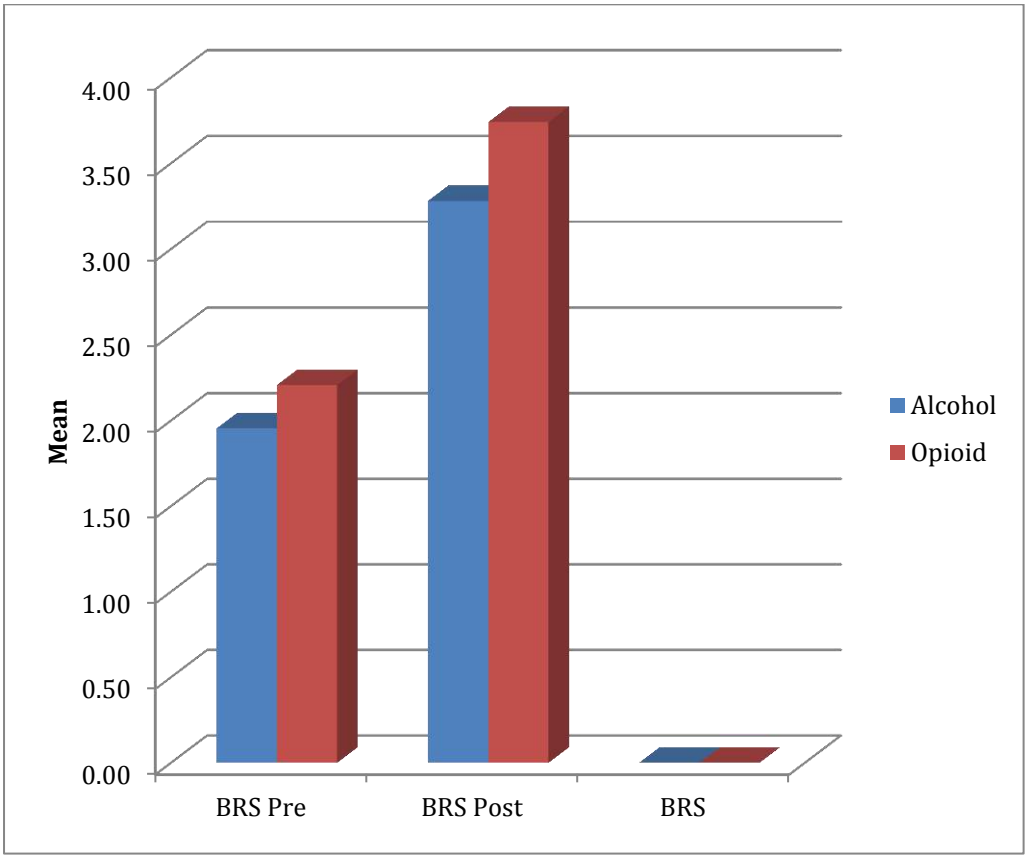


Table 13: Comparison of Pre and Post intervention scores on Self Distraction (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
SD Pre	4.53	1.30	6.07	1.62	-2.853	29	0.01
SD Post	4.47	0.99	4.67	0.98	-0.557	29	NS (0.05)
SD	0.07	0.88	1.40	1.24	-3.388	29	0.01

(SD: Self Distraction, NS: Not Significant)

Figure 13: Comparison of Pre and Post intervention scores on Self Distraction (Coping Strategy) in Alcohol and Opioid groups.

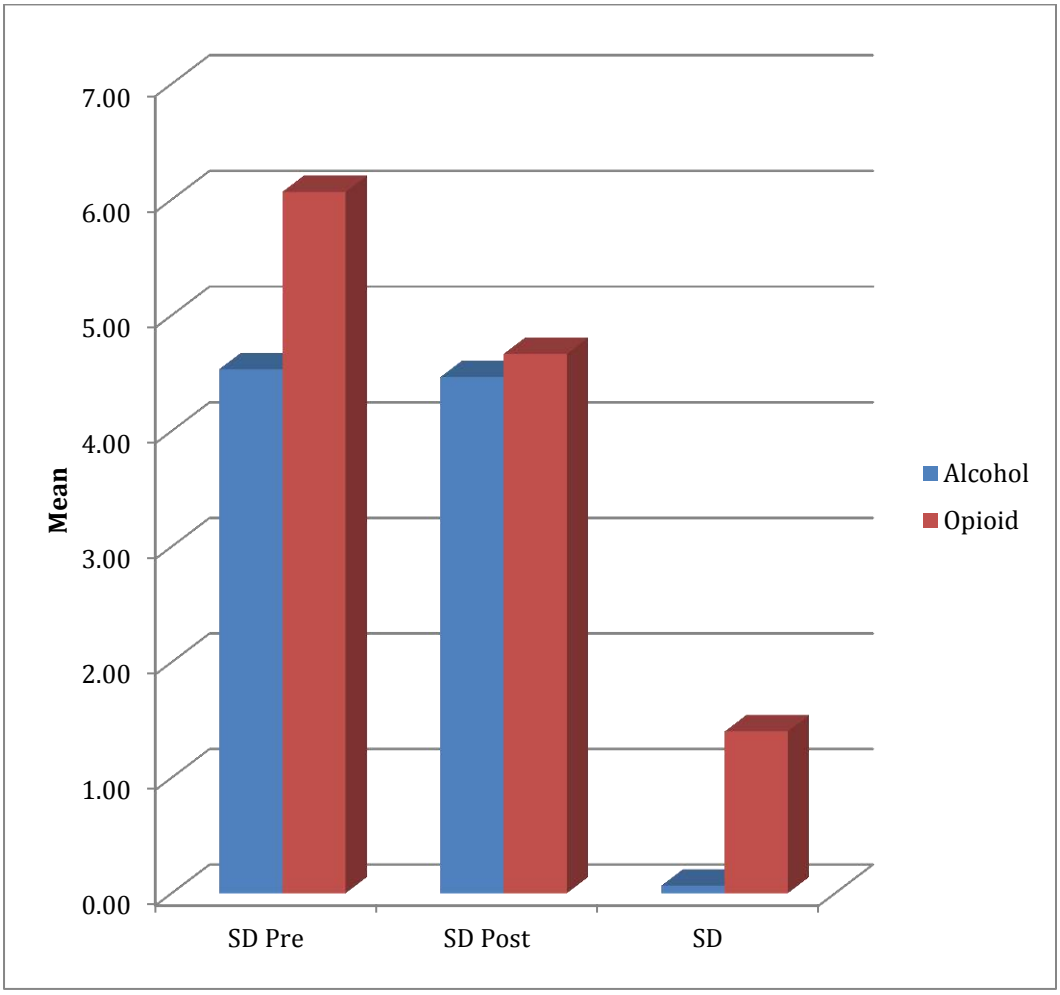


Table 14: Comparison of Pre and Post intervention scores on Active Coping (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
AC Pre	3.53	1.13	3.80	1.66	-0.516	29	NS (0.05)
AC Post	5.87	0.99	6.27	1.39	-0.909	29	NS (0.05)
AC	-2.33	0.82	-2.47	1.30	0.336	29	NS (0.05)

(AC: Active Coping, NS: Not Significant)

Figure 14: Comparison of Pre and Post intervention scores on Active Coping (Coping Strategy) in Alcohol and Opioid groups.

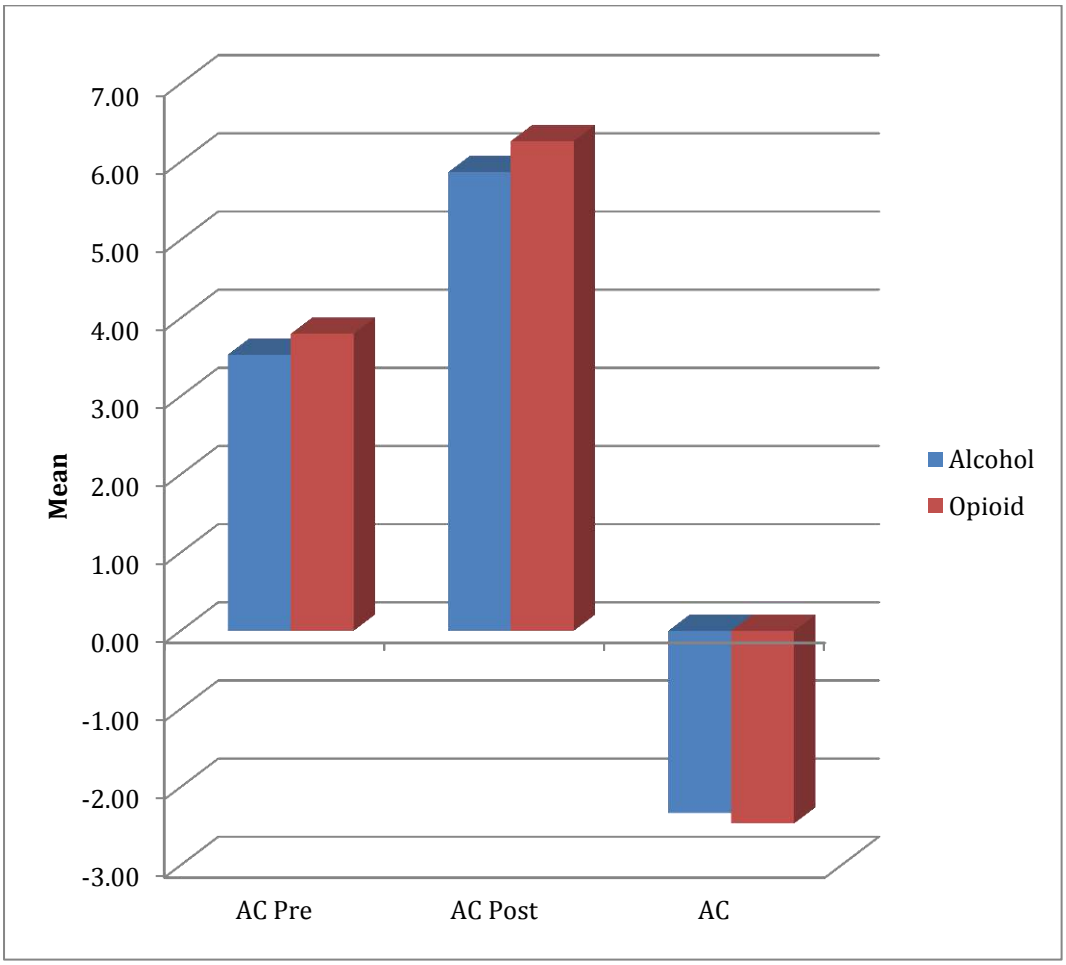


Table 15: Comparison of Pre and Post intervention scores on Denial (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
D Pre	2.13	0.35	2.60	1.68	-1.052	29	NS (0.05)
D Post	2.20	0.41	2.40	0.74	-0.917	29	NS (0.05)
D	-0.07	0.59	0.20	1.15	-0.800	29	NS (0.05)

(D: Denial, NS: Not Significant)

Figure 15: Comparison of Pre and Post intervention scores on Denial (Coping Strategy) in Alcohol and Opioid groups.

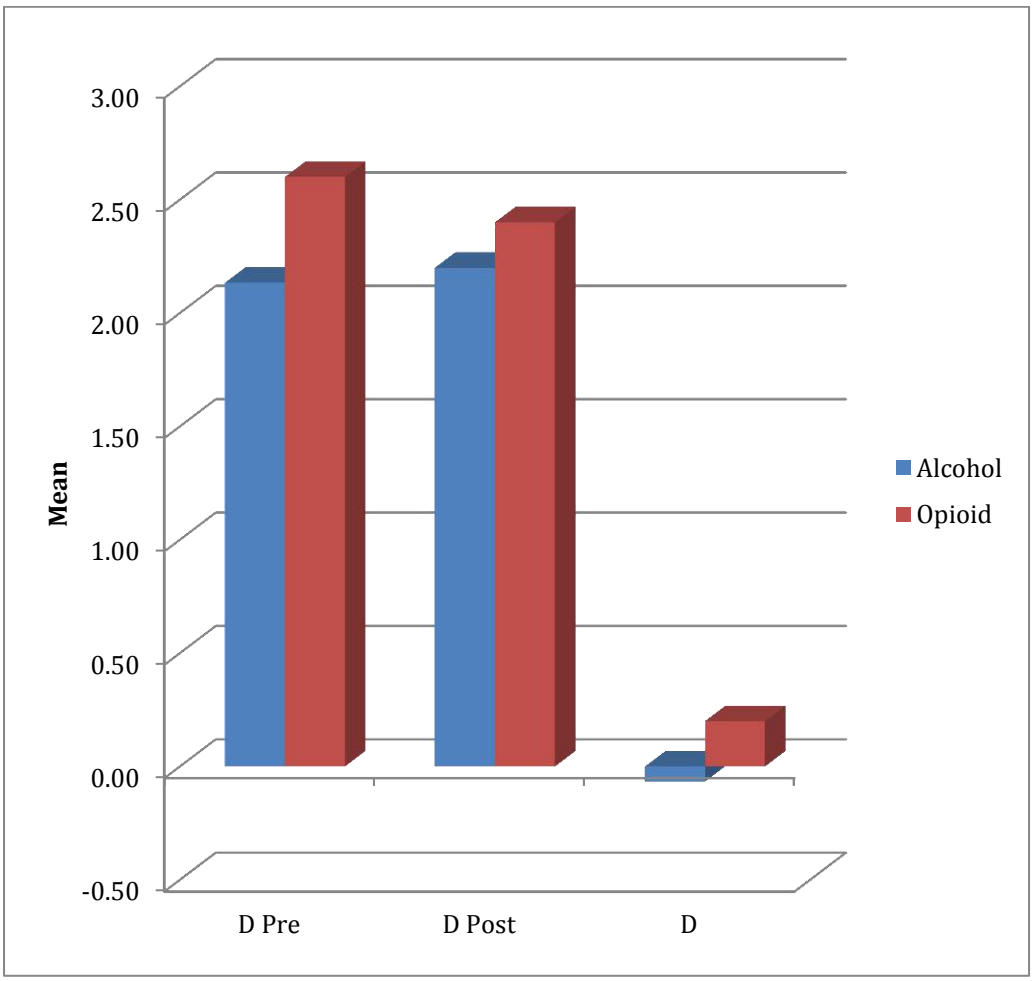


Table 16: Comparison of Pre and Post intervention scores on Substance Use (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
SU Pre	8.00	.000[a]	8.00	.000[a]		29	
SU Post	3.47	1.30	3.27	0.88	0.492	29	NS (0.05)
SU	4.53	1.30	4.73	0.88	-0.492	29	NS (0.05)

(SU: Substance Use, NS: Not Significant)

Figure 16: Comparison of Pre and Post intervention scores on Substance Use (Coping Strategy) in Alcohol and Opioid groups.

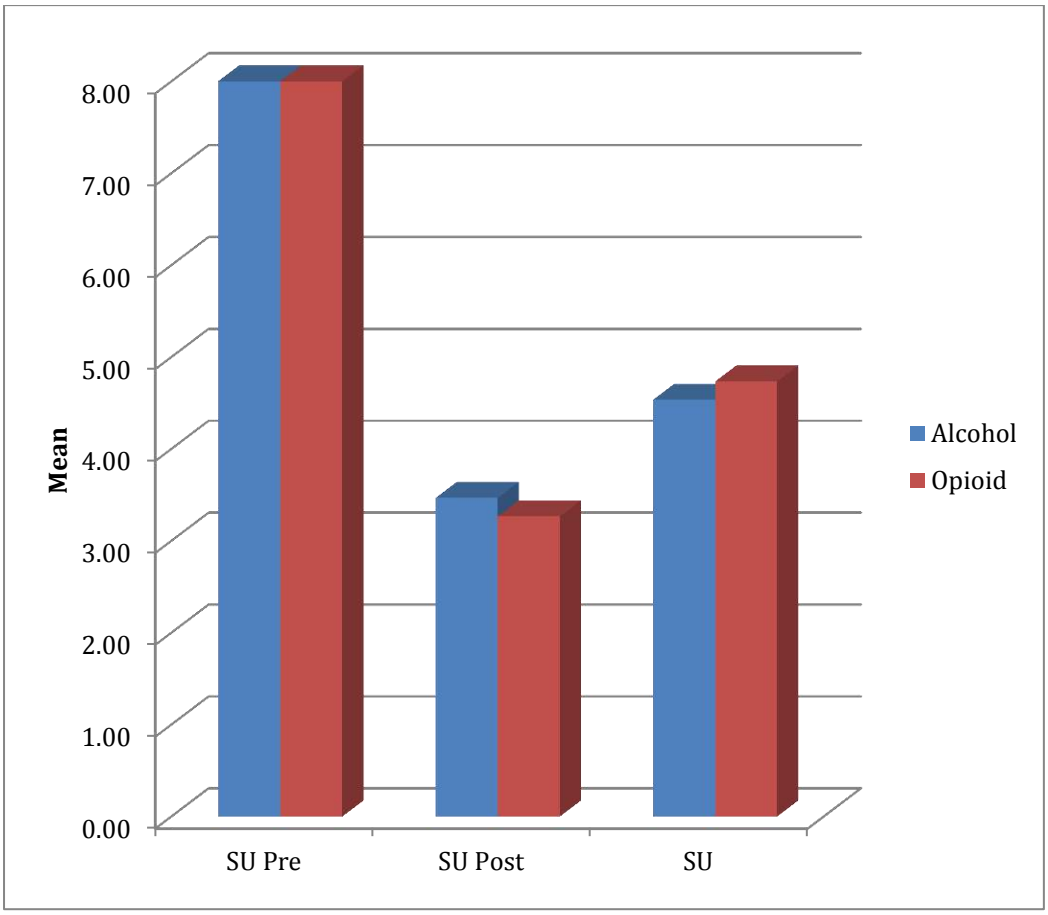


Table 17: Comparison of Pre and Post intervention scores on Emotional Support (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
ES Pre	3.93	0.96	3.93	1.33	0.000	29	NS (0.05)
ES Post	5.40	0.83	5.27	0.59	0.507	29	NS (0.05)
ES	-1.47	0.74	-1.33	1.18	-0.371	29	NS (0.05)

(ES: Emotional Support, NS: Not Significant)

Figure 17: Comparison of Pre and Post intervention scores on Emotional Support (Coping Strategy) in Alcohol and Opioid groups.

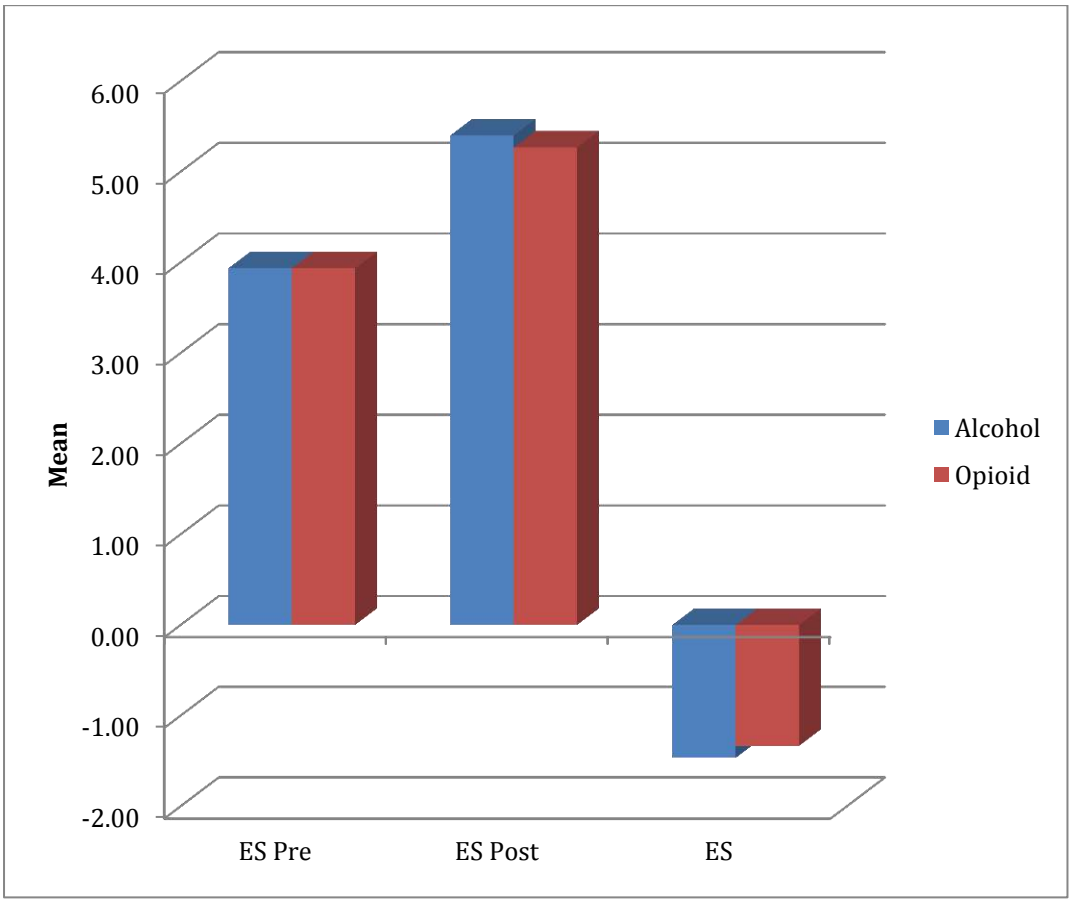


Table 18: Comparison of Pre and Post intervention scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		t	df	p-value
	Mean	SD	Mean	SD			
IS Pre	4.07	1.33	3.67	1.35	0.818	29	NS (0.05)
IS Post	5.00	1.13	4.80	0.86	0.544	29	NS (0.05)
IS	-0.93	0.59	-1.13	1.13	0.609	29	NS (0.05)

(IS: Instrumental Support, NS: Not Significant)

Figure 18: Comparison of Pre and Post intervention scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups.

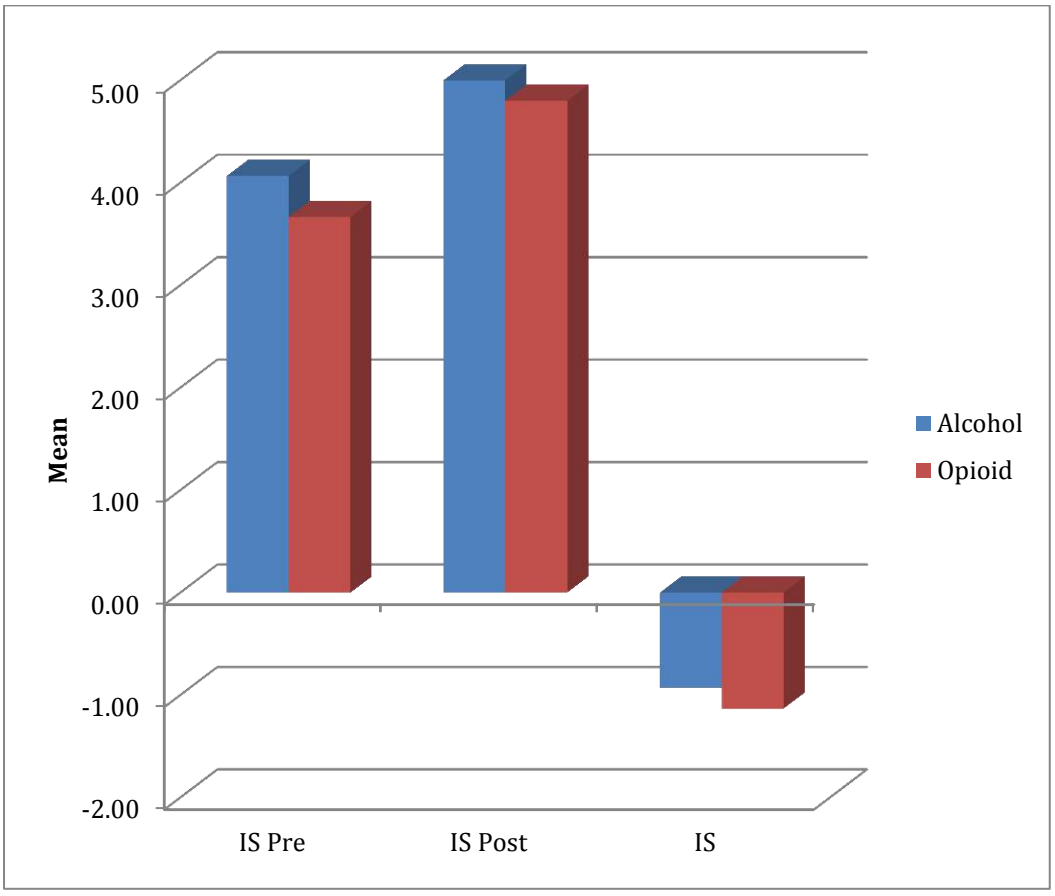


Table 19: Comparison of Pre and Post intervention scores on Behavioural Disengagement (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
BD Pre	5.20	2.18	4.53	2.29	0.816	29	NS (0.05)
BD Post	3.13	1.19	2.93	0.88	0.523	29	NS (0.05)
BD	2.07	1.49	1.60	1.72	0.794	29	NS (0.05)

(BD: Behavioural Disengagement, NS: Not Significant)

Figure 19: Comparison of Pre and Post intervention scores on Behavioural Disengagement (Coping Strategy) in Alcohol and Opioid groups.

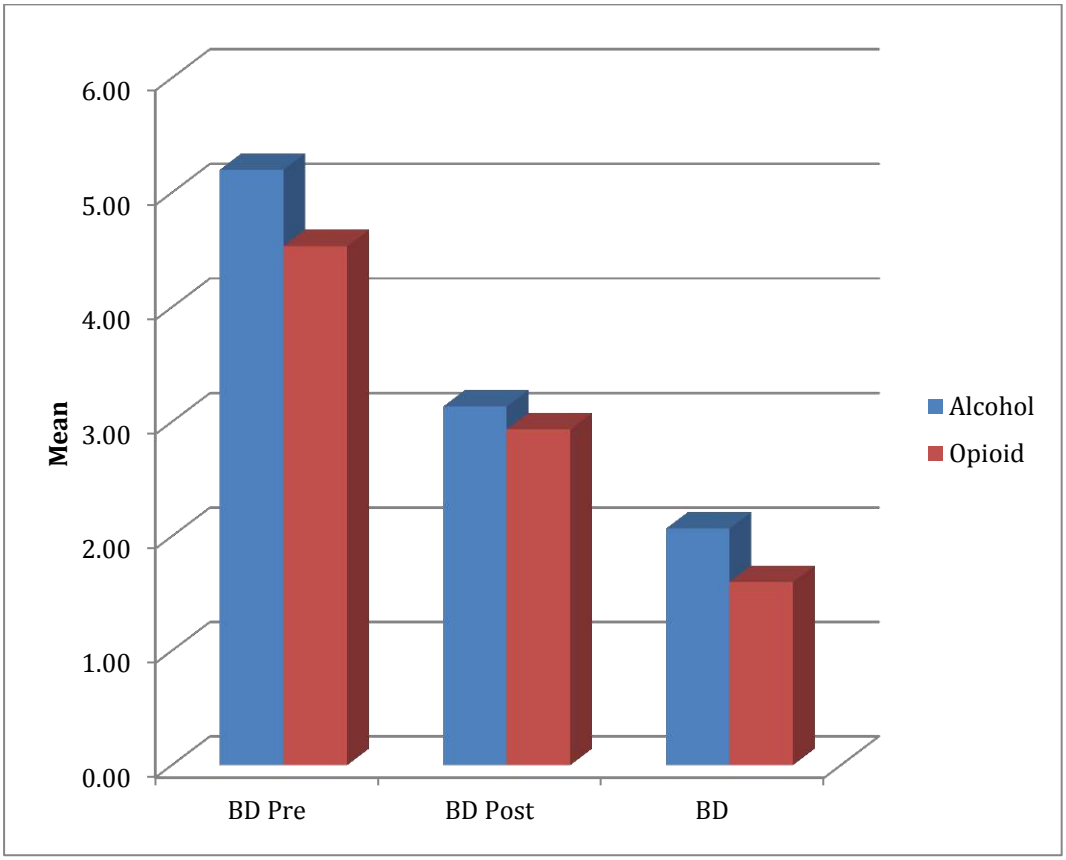


Table 20: Comparison of Pre and Post intervention scores on Venting (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
V Pre	3.87	1.06	3.53	1.13	0.835	29	NS (0.05)
V Post	4.60	0.63	4.67	0.49	-0.323	29	NS (0.05)
V	-0.73	0.88	-1.13	1.06	1.122	29	NS (0.05)

(V: Venting, NS: Not Significant)

Figure 20: Comparison of Pre and Post intervention scores on Venting (Coping Strategy) in Alcohol and Opioid groups.

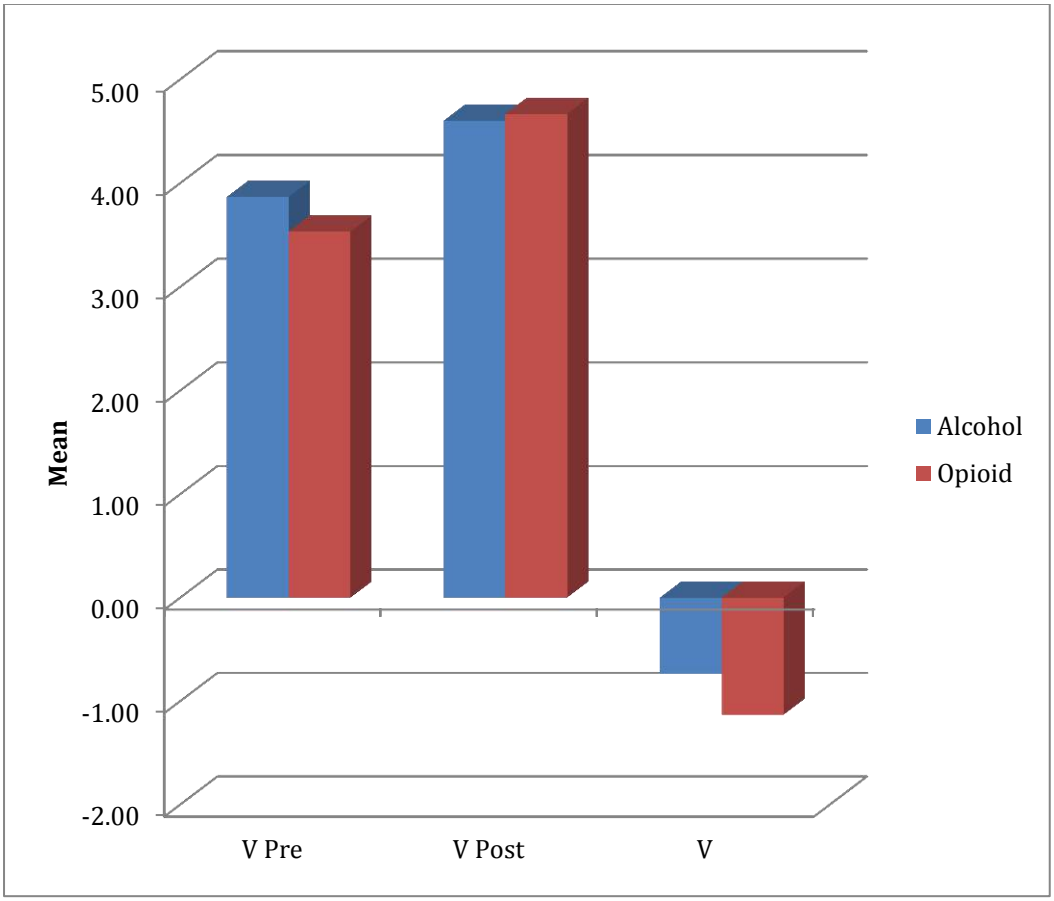


Table 21: Comparison of Pre and Post intervention scores on Positive Reframing (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
PR Pre	3.00	1.56	2.87	1.36	0.250	29	NS (0.05)
PR Post	4.53	1.19	4.73	1.16	-0.466	29	NS (0.05)
PR	-1.53	0.83	-1.87	0.99	0.997	29	NS (0.05)

(PR: Positive Reframing, NS: Not Significant)

Figure 21: Comparison of Pre and Post intervention scores on Positive Reframing (Coping Strategy) in Alcohol and Opioid groups.

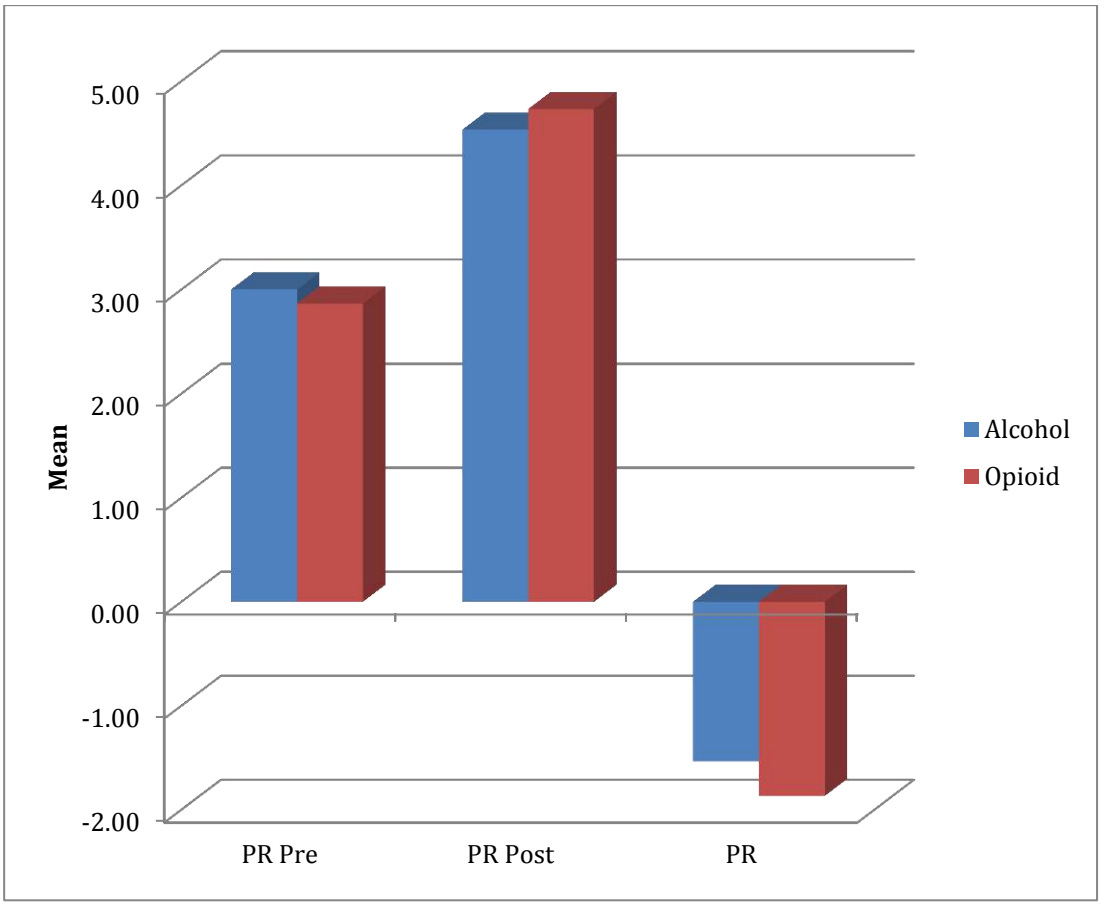


Table 22: Comparison of Pre and Post intervention scores on Planning (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
Pl Pre	3.60	1.18	3.13	1.19	1.078	29	NS (0.05)
Pl Post	5.80	0.94	5.60	1.06	0.548	29	NS (0.05)
Pl	-2.20	1.21	-2.47	1.36	0.569	29	NS (0.05)

(Pl: Planning, NS: Not Significant)

Figure 22: Comparison of Pre and Post intervention scores on Planning (Coping Strategy) in Alcohol and Opioid groups.

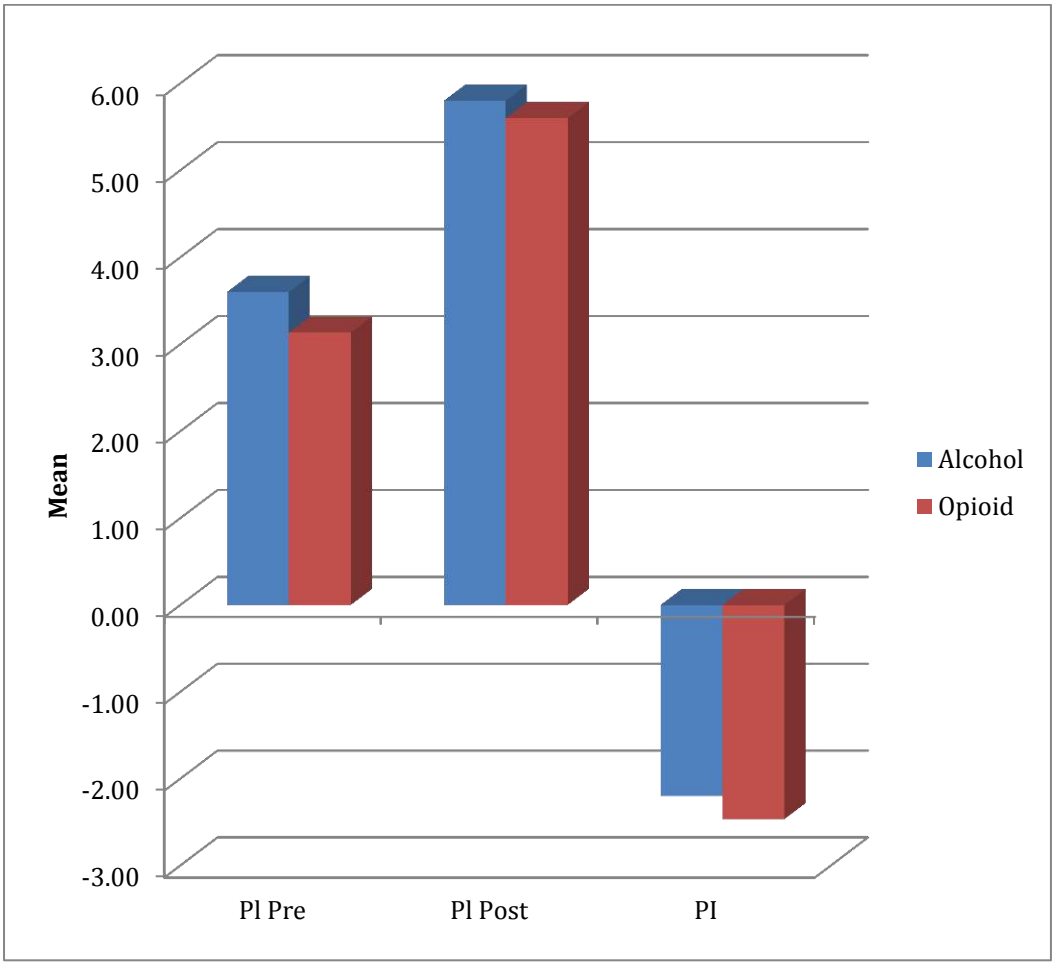


Table 23: Comparison of Pre and Post intervention scores on Humour (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
H Pre	2.27	0.80	2.07	0.26	0.923	29	NS (0.05)
H Post	3.20	0.68	2.87	0.64	1.387	29	NS (0.05)
H	-0.93	0.46	-0.80	0.68	-0.632	29	NS (0.05)

(H: Humour, NS: Not Significant)

Figure 23: Comparison of Pre and Post intervention scores on Humour (Coping Strategy) in Alcohol and Opioid groups.

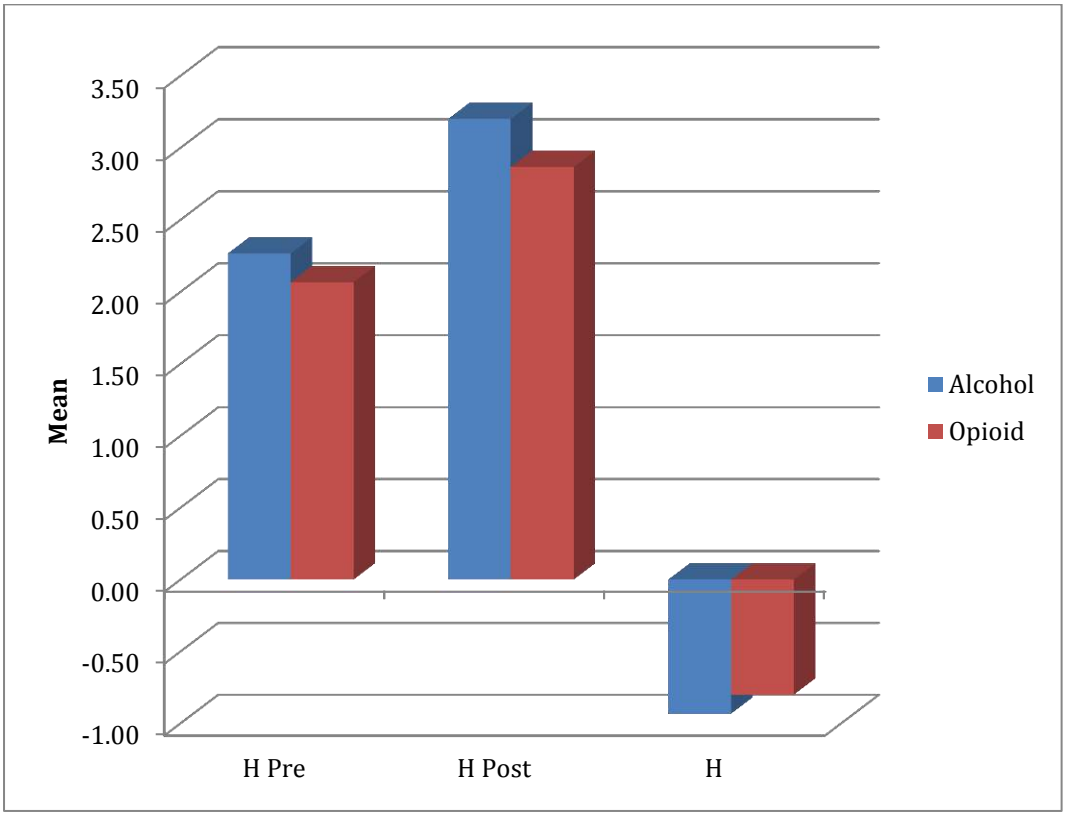


Table 24: Comparison of Pre and Post intervention scores on Acceptance (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
Acc Pre	4.27	1.03	4.67	1.23	-0.963	29	NS (0.05)
Acc Post	5.40	1.06	6.00	0.76	-1.790	29	NS (0.05)
Acc	-1.13	0.74	-1.33	0.98	0.631	29	NS (0.05)

(Acc: Acceptance, NS: Not Significant)

Figure 24: Comparison of Pre and Post intervention scores on Acceptance (Coping Strategy) in Alcohol and Opioid groups.

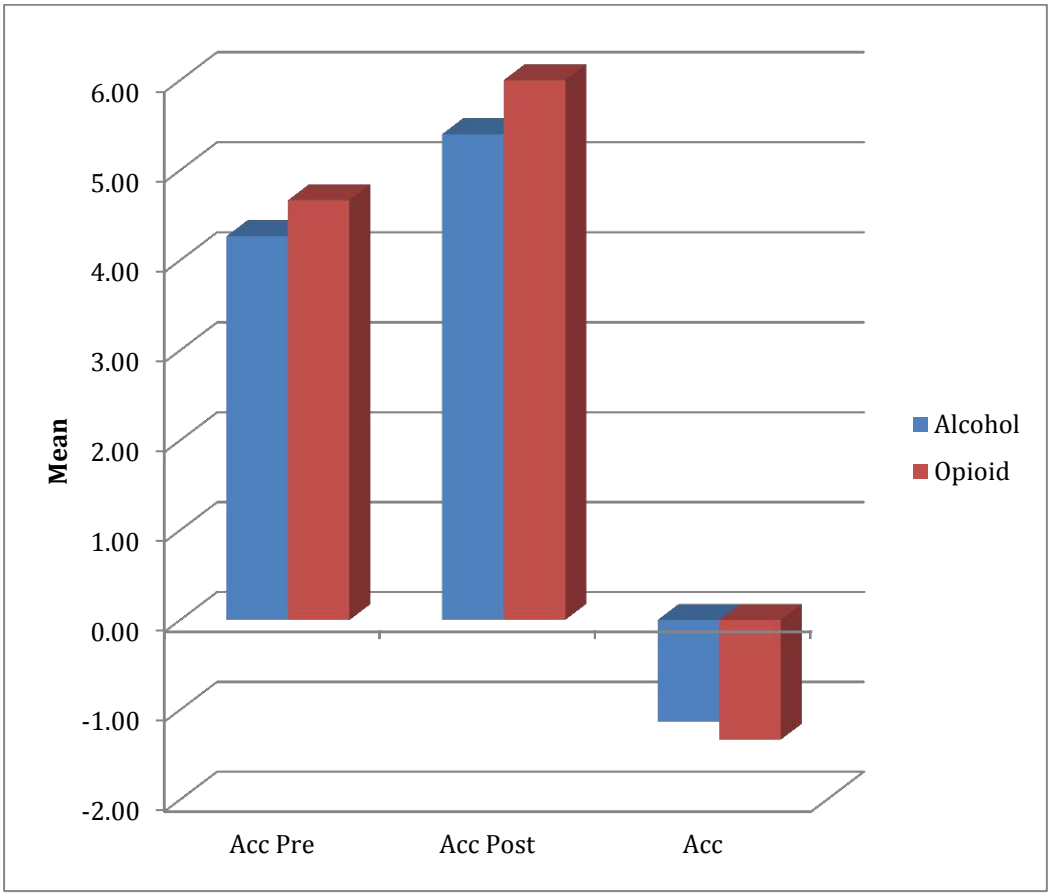


Table 25: Comparison of Pre and Post intervention scores on Religion (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
Rel Pre	5.00	1.73	4.27	1.94	1.091	29	NS (0.05)
Rel Post	5.33	1.40	4.67	1.54	1.240	29	NS (0.05)
Rel	-0.33	0.72	-0.40	0.74	0.250	29	NS (0.05)

(Rel: Religion, NS: Not Significant)

Figure 25: Comparison of Pre and Post intervention scores on Religion (Coping Strategy) in Alcohol and Opioid groups.

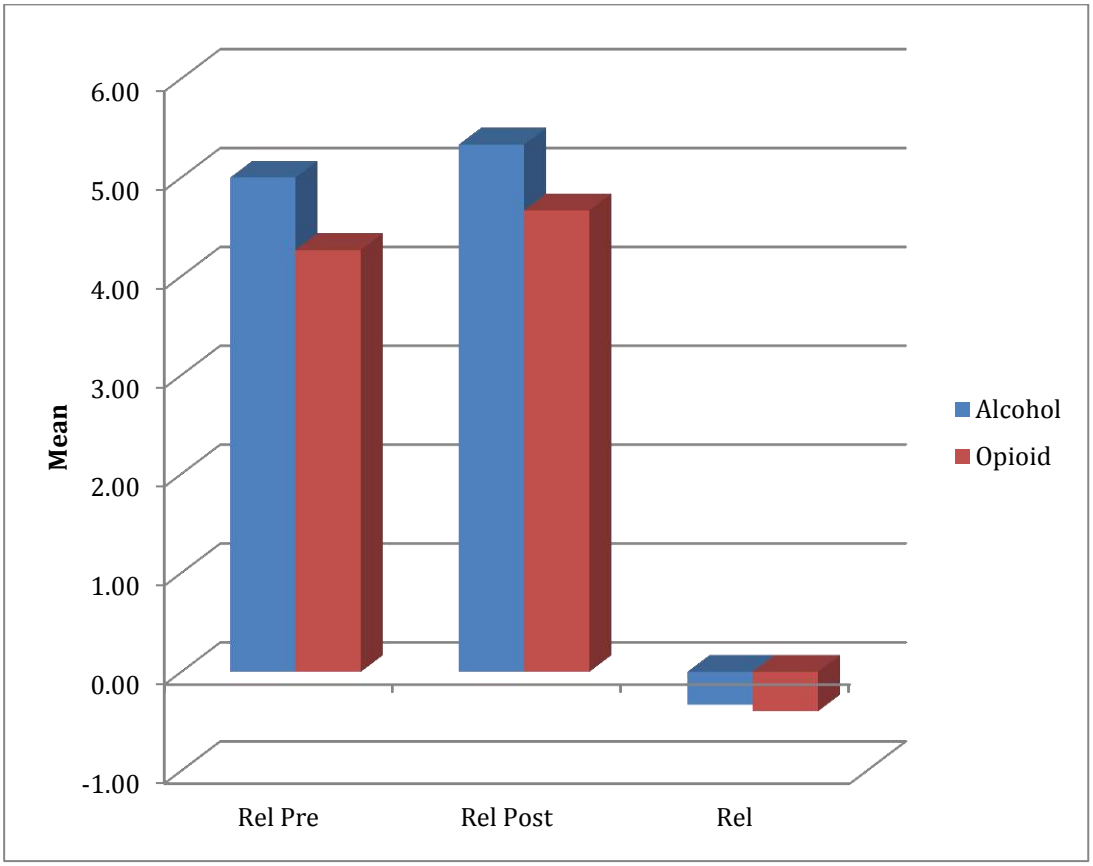
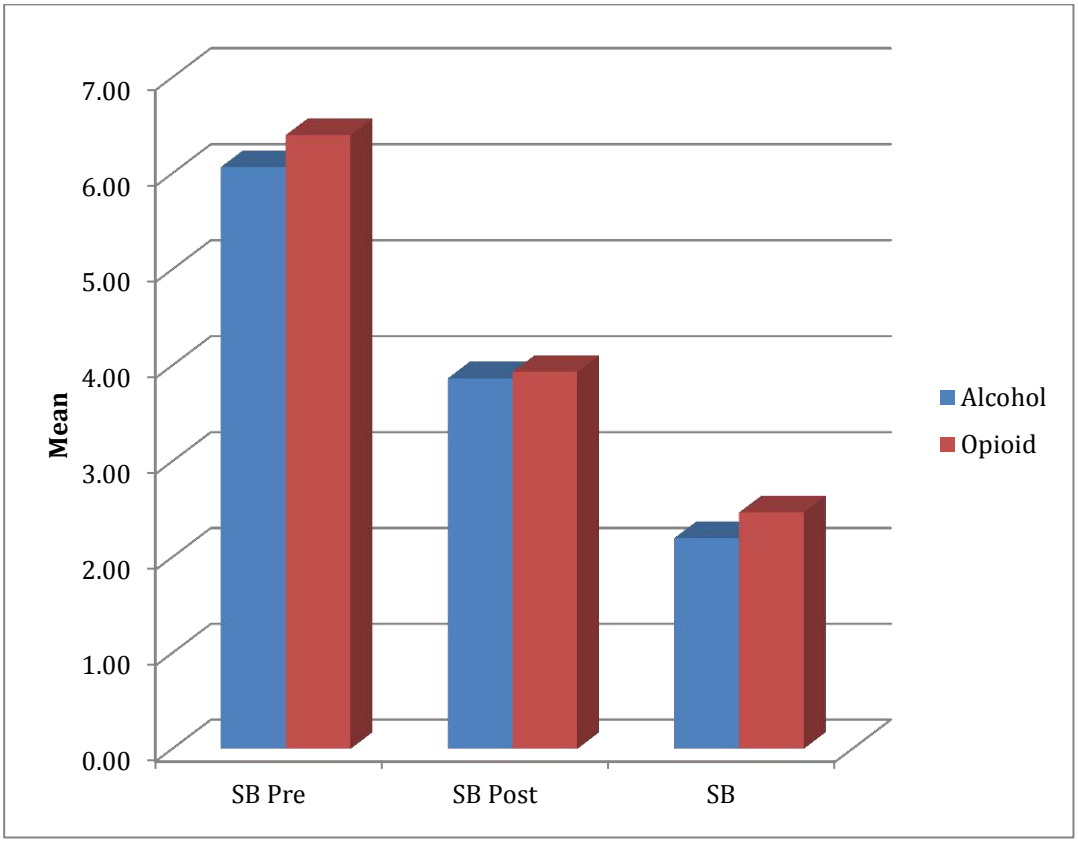


Table 26: Comparison of Pre and Post intervention scores on Self Blame (Coping Strategy) in Alcohol and Opioid groups.

	Alcohol		Opioid		Z	df	p-value
	Mean	SD	Mean	SD			
SB Pre	6.07	1.98	6.40	1.50	-0.519	29	NS (0.05)
SB Post	3.87	1.19	3.93	0.80	-0.180	29	NS (0.05)
SB	2.20	1.47	2.47	1.46	-0.498	29	NS (0.05)

(SB: Self Blame, NS: Not Significant)

Figure 26: Comparison of Pre and Post intervention scores on Self Blame (Coping Strategy) in Alcohol and Opioid groups.



RESULTS

The present study was conducted to study the effect of Acceptance and Commitment Therapy on Hopelessness, Resilience and Coping Strategies in patients with Substance Use Disorder. The study was conducted in the Department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 15 participants each diagnosed with Alcohol Use Disorder and Opioid Use Disorder as per DSM-5. The subjects were initially assessed for Hopelessness on Beck Hopelessness Scale, Resilience on Brief Resilience Scale and Coping Strategies on Brief COPE. 5 individual sessions of Acceptance and Commitment Therapy, ranging approximately an hour were carried out with the participants. Post the intervention, they were reassessed for Hopelessness, Resilience and Coping Strategies on the above mentioned measures. The data thus collected was tabulated and then analysed using SPSS. The following results were obtained:

Table 1 shows the Mean Age of participants in Alcohol and Opioid groups. The age range chosen for the study was 18 to 55 years. Mean age for Alcohol group was 39.60 with a standard deviation of 9.70. Mean age for Opioid group was 38.80 with a standard deviation of 8.12. The mean ages of the groups were compared using t-test and the value obtained was not significant indicating homogeneity of the groups.

Table 2 shows the Gender distribution among participants in Alcohol and Opioid groups. Although there was no restriction on gender for participation in the current study, all the participants in both the groups were males.

Table 3 shows the distribution of Marital Status in Alcohol and Opioid groups. In the Alcohol group, 26.7% participants (N=4) were unmarried, 66.7% participants (N=10) were married and 6.7% participants (N=1) were divorced. On the other hand in the Opioid group, 93.3%

participants (N=14) were married and 6.7% participants (N=1) were separated. Thus, the groups were dominated by married participants. The 2 groups were compared on marital status using Chi square. The value obtained was not significant.

Table 4 shows the distribution of Educational Qualification in Alcohol and Opioid groups. In the Alcohol group, 13.3% participants (N=2) were educated upto 8^{th} grade, 13.3% participants (N=2) were educated upto 10^{th} grade, 40% participants (N=6) were educated upto 12^{th} grade, 6.7% participants (N=1) were educated upto Diploma, 20% participants (N=3) were Graduates and 6.7% participants (N=1) were Post Graduate. On the other hand in the Opioid group, 13.3% participants (N=2) were educated upto 8^{th} grade, 6.7% participants (N=1) were educated upto 10^{th} grade, 33.3% participants (N=5) were educated upto 12^{th} grade, 40% participants (N=6) were Graduates and 6.7% participants (N=1) were Post Graduate. The 2 groups were compared on educational qualification using Chi square. The value obtained was not significant.

Table 5 shows the distribution of Occupation in Alcohol and Opioid groups. In the Alcohol group, 20% participants (N=3) were Professionals, 26.7% participants (N=4) were Farmers, 33.3% participants (N=5) were Semi Skilled workers, 6.7% participants (N=1) were Shopkeeper and 13.3% participants (N=2) were Unemployed. On the other hand in the Opioid group, 6.7% participants (N=1) were Professionals, 33.3% participants (N=5) were Farmers, 40% participants (N=6) were Semi Skilled workers, 6.7% participants (N=1) were Student and 13.3% participants (N=2) were Unemployed. Thus, majority of the participants in both the groups were involved in agriculture or semi skilled work. The 2 groups were compared on Occupation using Chi square. The value obtained was not significant.

Table 6 shows the distribution of Background in Alcohol and Opioid groups. In the Alcohol group, 60% participants (N=9) belonged to a Rural Background and 40% participants (N=6) belonged to an Urban

Background. Thus, majority of the participants in the Alcohol group came from a Rural Background. In the Opioid group, 46.7% participants (N=7) belonged to a Rural Background and 53.3% participants (N=8) belonged to an Urban Background. The 2 groups were compared on Rural/ Urban Background using Chi square. The value obtained was not significant.

Table 7 shows the distribution of Family Type in Alcohol and Opioid groups. In the Alcohol group, 53.3% participants (N=8) belonged to a Nuclear family, 26.7% participants (N=4) belonged to an Extended family and 20% participants (N=3) belonged to a Joint family. Thus, majority of the participants in the Alcohol group belonged to a Nuclear family. In the Opioid group, 33.3% participants (N=5) belonged to a Nuclear family, 53.3% participants (N=8) belonged to an Extended family and 13.3% participants (N=2) belonged to a Joint family. Thus, majority of the participants in the Opioid group belonged to an Extended family. The 2 groups were compared on Family Type using Chi square. The value obtained was not significant.

Table 8 shows the distribution of Socio Economic Status in Alcohol and Opioid groups. In the Alcohol group, 46.7% participants (N=7) belonged to Lower Middle Socio Economic Status, 46.7% participants (N=7) belonged to Upper Middle Socio Economic Status and 6.7% participants (N=1) belonged to Upper Socio Economic Status. In the Opioid group, 6.7% participants (N=1) belonged to Lower Socio Economic Status, 6.7% participants (N=1) belonged to Upper Lower Socio Economic Status, 26.7% participants (N=4) belonged to Lower Middle Socio Economic Status and 60% participants (N=9) belonged to Upper Middle Socio Economic Status. Thus, majority of the participants in both the groups belonged to Lower Middle and Upper Middle Socio Economic Status. The 2 groups were compared on SES using Chi square. The value obtained was not significant.

Table 9 shows the distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Alcohol group. The

Pre and Post Mean scores were compared using Wilcoxon rank test. The difference between the Pre and Post scores on Hopelessness, Resilience, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Alcohol group was significant at 0.01 level. This indicates that the ACT intervention proved effective in decreasing Hopelessness, Substance use, Behavioural Disengagement and Self Blame in the participants. The intervention was also effective in increasing Resilience, Active Coping, Emotional Support, Instrumental Support, Venting, Positive Reframing, Planning, Humour and Acceptance in the patients. The intervention had no effect on the use of Self Distraction, Denial and Religion as coping strategies.

Table 10 shows the distribution of Pre and Post intervention scores on Hopelessness, Resilience and Coping Strategies in Opioid group. The Pre and Post Mean scores were compared using Wilcoxon rank test. The difference between the Pre and Post scores on Hopelessness, Resilience, Self Distraction, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Opioid group was significant at 0.01 level. This indicates that the ACT intervention proved effective in decreasing Hopelessness, Self Distraction, Substance use, Behavioural Disengagement and Self Blame in the participants. The intervention was also effective in increasing Resilience, Active Coping, Emotional Support, Instrumental Support, Venting, Positive Reframing, Planning, Humour and Acceptance in the patients. The intervention had no effect on the use of Denial and Religion as coping strategies.

Thus, the ACT intervention proved effective in reducing Hopelessness, increasing Resilience and improving many Coping Strategies in patients with Alcohol Use Disorder and Opioid use Disorder.

Table 11 shows the comparison of Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups. The mean pre intervention scores on Hopelessness were 12.73 and 11.80 for Alcohol and Opioid groups respectively. The mean post intervention scores on Hopelessness were 8.40 and 7.0 for Alcohol and Opioid groups respectively. Student t-test was used to compare the pre and post intervention scores on Hopelessness between the two groups. The values obtained were not significant. This indicates that even though both the groups showed improvement (decreased score) in Hopelessness post the intervention, there was no significant inter group difference. Thus, both the groups improved but they improved similarly.

Table 12 shows the comparison of Pre and Post intervention scores on Resilience in Alcohol and Opioid groups. The mean pre intervention scores on Resilience were 1.95 and 2.21 for Alcohol and Opioid groups respectively. The mean post intervention scores on Resilience were 3.28 and 3.74 for Alcohol and Opioid groups respectively. Student t-test was used to compare the pre and post intervention scores on Resilience between the two groups. The values obtained were not significant. This indicates that even though both the groups showed improvement in Resilience post the intervention, there was no significant inter group difference. Thus, both the groups improved but they improved similarly.

Table 13 shows the comparison of Pre and Post intervention scores on Self Distraction (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Self Distraction were 4.53 and 6.07 for Alcohol and Opioid groups respectively. The mean post intervention scores on Self Distraction were 4.47 and 4.67 for Alcohol and Opioid groups respectively. Mann-Whitney test was used to compare the pre and post intervention scores on Self Distraction between the two groups. The values obtained were significant for pre intervention

scores but not significant for post intervention scores. Post the ACT intervention, a significant decline was seen in the use of Self Distraction as a Coping Strategy in the Opioid group. However, there was no significant inter group difference post intervention.

Table 14 shows the comparison of Pre and Post intervention scores on Active Coping (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Active Coping were 3.53 and 3.80 for Alcohol and Opioid groups respectively. The mean post intervention scores on Active Coping were 5.87 and 6.27 for Alcohol and Opioid groups respectively. Mann-Whitney test was used to compare the pre and post intervention scores on Active Coping between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Active Coping post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Active Coping.

Table 15 shows the comparison of Pre and Post intervention scores on Denial (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Denial were 2.13 and 2.60 for Alcohol and Opioid groups respectively. The mean post intervention scores on Denial were 2.20 and 2.40 for Alcohol and Opioid groups respectively. Mann-Whitney test was used to compare the pre and post intervention scores on Denial between the two groups. The values obtained were not significant. So, the groups did not differ significantly in the use of Denial as a Coping Strategy pre and post the intervention.

Table 16 shows the comparison of Pre and Post intervention scores on Substance Use (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Substance Use were 8.0 and 8.0 for Alcohol and Opioid groups respectively. The mean post intervention scores on Substance Use were 3.47 and 3.27 for Alcohol and Opioid groups respectively. Mann-Whitney test was used to compare the pre and post intervention scores on Substance Use between the two groups. The values obtained were not significant. This indicates that

even though both the groups showed substantial decrease in use of Substance Use post the intervention, there was no significant inter group difference. Thus, both the groups decreased similarly in the use of Substance Use as a Coping Strategy.

Table 17 shows the comparison of Pre and Post intervention scores on Emotional Support (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Emotional Support were 3.93 and 3.93 for Alcohol and Opioid groups respectively. The mean post intervention scores on Emotional Support were 5.40 and 5.27 for Alcohol and Opioid groups respectively. Mann-Whitney test was used to compare the pre and post intervention scores on Emotional Support between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Emotional Support post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Emotional Support as a Coping Strategy.

Table 18 shows the comparison of Pre and Post intervention scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Instrumental Support were 4.07 and 3.67 for Alcohol and Opioid groups respectively. The mean post intervention scores on Instrumental Support were 5.0 and 4.8 for Alcohol and Opioid groups respectively. Student t-test was used to compare the pre and post intervention scores on Instrumental Support between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Instrumental Support post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Instrumental Support as a Coping Strategy.

Table 19 shows the comparison of Pre and Post intervention scores on Behavioural Disengagement (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Behavioural Disengagement were 5.20 and 4.53 for Alcohol and Opioid groups

respectively. The mean post intervention scores on Behavioural Disengagement were 3.13 and 2.93 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Behavioural Disengagement between the two groups. The values obtained were not significant. This indicates that even though both the groups showed improvement (decreased score) in Behavioural Disengagement post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Behavioural Disengagement as a Coping Strategy.

Table 20 shows the comparison of Pre and Post intervention scores on Venting (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Venting were 3.87 and 3.53 for Alcohol and Opioid groups respectively. The mean post intervention scores on Venting were 4.60 and 4.67 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Venting between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Venting post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Venting as a Coping Strategy.

Table 21 shows the comparison of Positive Reframing scores on Instrumental Support (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Positive Reframing were 3.00 and 2.87 for Alcohol and Opioid groups respectively. The mean post intervention scores on Positive Reframing were 4.53 and 4.73 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Positive Reframing between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Positive Reframing post the intervention, there was no significant inter group

difference. Thus, both the groups improved similarly in the use of Positive Reframing as a Coping Strategy.

Table 22 shows the comparison of Pre and Post intervention scores on Planning (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Planning were 3.60 and 3.13 for Alcohol and Opioid groups respectively. The mean post intervention scores on Planning were 5.8 and 5.6 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Planning between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Planning post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Planning as a Coping Strategy.

Table 23 shows the comparison of Pre and Post intervention scores on Humour (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Humour were 2.27 and 2.07 for Alcohol and Opioid groups respectively. The mean post intervention scores on Humour were 3.20 and 2.87 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Humour between the two groups. The values obtained were not significant. This indicates that even though both the groups showed increase in Humour post the intervention, there was no significant inter group. Thus, both the groups improved similarly in the use of Humour as a Coping Strategy.

Table 24 shows the comparison of Pre and Post intervention scores on Acceptance (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Acceptance were 4.27 and 4.67 for Alcohol and Opioid groups respectively. The mean post intervention scores on Acceptance were 5.40 and 6.00 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Acceptance between the two groups. The values obtained were not significant. This indicates that even though

both the groups showed increase in Acceptance post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Acceptance as a Coping Strategy.

Table 25 shows the comparison of Pre and Post intervention scores on Religion (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Religion were 5.00 and 4.27 for Alcohol and Opioid groups respectively. The mean post intervention scores on Religion were 5.33 and 4.67 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Religion between the two groups. The values obtained were not significant. So, the groups did not differ significantly on the use of Religion as a Coping Strategy, pre and post the intervention.

Table 26 shows the comparison of Pre and Post intervention scores on Self Blame (Coping Strategy) in Alcohol and Opioid groups. The mean pre intervention scores on Self Blame were 6.07 and 6.40 for Alcohol and Opioid groups respectively. The mean post intervention scores on Self Blame were 3.87 and 3.93 for Alcohol and Opioid groups respectively. Mann- Whitney test was used to compare the pre and post intervention scores on Self Blame between the two groups. The values obtained were not significant. This indicates that even though both the groups showed improvement (decreased score) in Self Blame post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Self Blame as a Coping Strategy.

Thus on the basis of results discussed above, use of Acceptance and Commitment Therapy showed positive results in terms of Hopelessness, Resilience and many Coping Strategies in patients with Alcohol Use Disorder and Opioid Use Disorder. Patients in both the groups were observed to have improved similarly post the ACT intervention.

DISCUSSION

The current study aimed to study the effect of Acceptance and Commitment Therapy on Hopelessness, Resilience and Coping Strategies in patients with Substance Use Disorder. The study was conducted in the Department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 15 participants each diagnosed with Alcohol Use Disorder and Opioid Use Disorder as per DSM-5. Socio demographic profile of the subjects was taken. The subjects were initially assessed for Hopelessness on Beck Hopelessness Scale, Resilience on Brief Resilience Scale and Coping Strategies on Brief COPE. 5 individual sessions of Acceptance and Commitment Therapy were carried out with the participants. Post the intervention, they were reassessed for Hopelessness, Resilience and Coping Strategies on the above mentioned measures. The data thus collected was tabulated and then analysed using SPSS. The results have been discussed below in light of prevailing research evidence.

SOCIO DEMOGRAPHIC VARIABLES

Data was described in terms of age, gender, marital status, educational qualification, occupation, background, family type and socio-economic status.

AGE:

The study was conducted on adult participants from the age group 18-55 years. The youngest participant was 25 years old and the oldest participant was 55 years old. The mean age for Alcohol group was 39.60 years and that for Opioid group was 38.80 years. The mean ages for both the groups were compared using t-test and the value obtained was not statistically significant. Thus, the groups were homogenous on the basis of distribution of age.

Similar findings in terms of age distribution were found in studies by Gupta et al. (2013), [66] Arora et al. (2016), [67] Arora et al. (2016) [68] and Chavan et al. (2019). [70]

GENDER:

The study was not restricted in terms of gender. However, all the participants in both the groups were males. As per the general observation of the researcher, majority of patients admitted for de addiction services at DMCH, Ludhiana were also males.

The finding supports the literature reported by Gupta et al. (2013), [66] Arora et al. (2016) [67] and Randhawa et al. (2020). [71]

MARITAL STATUS:

In the Alcohol group, 26.7% participants were unmarried, 66.7% participants were married and 6.7% participants were divorced. In the Opioid group, 93.3% participants were married and 6.7% participants were separated. Thus, the groups were dominated by married participants. The difference between the marital status of participants in both the groups was by chance.

The findings are supported by literature given by Gupta et al. (2013), [66] Nagrale et al. (2018), [69] Chavan et al. (2019) [70] and Randhawa et al. (2020). [71]

EDUCATIONAL QUALIFICATION:

In the Alcohol group, 13.3% participants were educated upto 8th grade, 13.3% participants were educated upto 10th grade, 40% participants were educated upto 12th grade, 6.7% participants were educated upto Diploma, 20% participants were Graduates and 6.7% participants were Post Graduates. Similar findings regarding educational qualification of substance users were reported by Saxena et al. (2010). [65] In the Opioid group, 13.3% participants were educated upto 8th grade, 6.7% participants were educated upto 10th grade, 33.3% participants were educated upto 12th grade, 40% participants were Graduates and 6.7% participants were Post Graduates. Similar findings were reported by

Nagrale et al. (2018). [69] The difference between the educational qualification of the participants in Alcohol and Opioid groups was by chance.

OCCUPATION:

In the Alcohol group, 20% participants were Professionals, 26.7% participants were Farmers, 33.3% participants were Semi Skilled workers, 6.7% participants were Shopkeepers and 13.3% participants were Unemployed. In the Opioid group, 6.7% participants were Professionals, 33.3% participants were Farmers, 40% participants were Semi Skilled workers, 6.7% participants were Students and 13.3% participants were Unemployed. Thus, majority of the participants in both the groups were involved in agriculture or semi skilled work. This is supported by literature given by Arora et al. (2016). [68] The difference between the Occupations of participants in both the groups was by chance.

BACKGROUND:

In the Alcohol group, 60% participants (N=9) belonged to a Rural Background and 40% participants (N=6) belonged to an Urban Background. Thus, majority of the participants in the Alcohol group came from a Rural Background. Gupta et al. (2013) [66] and Nagrale et al. (2018) [69] reported similar findings. In the Opioid group, 46.7% participants (N=7) belonged to a Rural Background and 53.3% participants (N=8) belonged to an Urban Background. Saluja et al. (2007) [64] and Chavan et al. (2019) [70] reported similar findings. The difference between the Background of participants of both the groups was by chance.

FAMILY TYPE:

In the Alcohol group, 53.3% participants (N=8) belonged to a Nuclear family, 26.7% participants (N=4) belonged to an Extended family and 20% participants (N=3) belonged to a Joint family. Thus, majority of the participants in the Alcohol group belonged to a Nuclear family. This is similar to the findings reported by Saluja et al. (2007). [64] In the Opioid

group, 33.3% participants (N=5) belonged to a Nuclear family, 53.3% participants (N=8) belonged to an Extended family and 13.3% participants (N=2) belonged to a Joint family. Thus, majority of the participants in the Opioid group belonged to an Extended family. Similar findings were reported by Arora et al. (2016). [68] The difference between the Family Types of participants of both the groups was by chance.

SOCIO ECONOMIC STATUS:

The participants belonged to diverse socioeconomic background. In the Alcohol group, 46.7% participants belonged to Lower Middle Socio Economic Status, 46.7% participants belonged to Upper Middle Socio Economic Status and 6.7% participants belonged to Upper Socio Economic Status. In the Opioid group, 6.7% participants belonged to Lower Socio Economic Status, 6.7% participants belonged to Upper Lower Socio Economic Status, 26.7% participants belonged to Lower Middle Socio Economic Status and 60% participants belonged to Upper Middle Socio Economic Status. The difference between the SES of the participants in both the groups was by chance.

The findings could be corroborated with the literature given by Gupta et al. (2013) [66] and Arora et al. (2016). [67]

EFFICACY OF ACT IN SUDs- AUD AND OUD

- The current research aimed to study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorders- Alcohol and Opioid.
- The current research aimed to compare the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies amongst patients diagnosed with Alcohol Use Disorder and Opioid Use Disorder.

HOPELESSNESS:

In the Alcohol group, pre and post intervention scores on Hopelessness were 12.73 and 8.40 respectively. This decrease in Hopelessness scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Hopelessness were 11.80 and 7.00 respectively. This decrease in Hopelessness scores was also significant at 0.01 level.

This indicates that the participants in both the groups experienced a substantial decrease in feelings of Hopelessness post the ACT intervention.

The Pre and Post intervention scores on Hopelessness in Alcohol and Opioid groups were compared using Student t-test and the values obtained were not significant. This indicates that even though both the groups showed improvement (decreased score) in Hopelessness post the intervention, there was no significant inter group difference. Thus, both the groups improved but they improved similarly.

The current findings showing effectiveness of ACT in decreasing Hopelessness and enhancing Hope were supported by literature given by Morton et al. (2012), [128] Dadashi et al. (2017), [144] Montazer et al. (2017), [146] Araghi et al. (2020) [156] and Smkhani et al. (2021). [162]

RESILIENCE:

In the Alcohol group, pre and post intervention scores on Resilience were 1.95 and 3.28 respectively. This increase in Resilience scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Resilience were 2.21 and 3.74 respectively. This increase in Resilience scores was also significant at 0.01 level.

This indicates that the participants in both the groups experienced a substantial increase in Resilience post the ACT intervention.

The Pre and Post intervention scores on Resilience in Alcohol and Opioid groups were compared using Student t-test and the values obtained were not significant. This indicates that even though both the groups showed improvement in Resilience post the intervention, there was no significant inter group difference. Thus, both the groups improved but they improved similarly.

The current findings showing effectiveness of ACT in increasing Resilience were supported by literature given by Moran (2011), [122] Ernst et al. (2016), [140] Seyyedjafari et al. (2017), [145] Hassani et al. (2018), [149] Udell et al. (2018), [150] Moghbel et al. (2019) [152] and Ryan et al. (2020). [159]

COPING STRATEGIES:

The participants were assessed on fourteen coping strategies: Self Distraction, Active Coping, Denial, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance, Religion and Self Blame.

Self Distraction:

In the Alcohol group, pre and post intervention scores on Self Distraction were 4.53 and 4.47 respectively. This decrease in Self Distraction scores was not significant. This indicates that there wasn't a substantial decrease in the use of Self Distraction as a Coping Strategy for participants in the Alcohol group, post the ACT intervention.

In the Opioid group, pre and post intervention scores on Self Distraction were 6.07 and 4.67 respectively. This decrease in Self Distraction scores was significant at 0.01 level. This indicates that there was a substantial decrease in the use of Self Distraction as a Coping Strategy for participants in the Opioid group, post the ACT intervention.

The Pre and Post intervention scores on Self Distraction in Alcohol and Opioid groups were compared using Mann-Whitney test. The values obtained were significant for pre intervention scores but not significant for post intervention scores. This indicates that before the ACT

intervention, participants in the Opioid group inclined more towards using Self Distraction as a Coping Strategy as compared to participants in the Alcohol group. Post the ACT intervention, a significant decline was seen in the use of Self Distraction as a Coping Strategy in the Opioid group. However, there was no significant inter group difference in the decline in the use of Self Distraction as a Coping Strategy.

Use of ACT as a means of improving Coping Strategies has been supported by previous literature given by Strosahl et al. (1998), [114] Ernst et al. (2016), [140] Shayeghian et al. (2016) [143] and Bani et al. (2020). [158] There has not been much literature on the effect of ACT on specific coping strategy of Self Distraction and the current study's findings add to this gap in literature.

Active Coping:

In the Alcohol group, pre and post intervention scores on Active Coping were 3.53 and 5.87 respectively. This increase in Active Coping scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Active Coping were 3.80 and 6.27 respectively. This increase in Active Coping scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Active Coping as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Active Coping in Alcohol and Opioid groups were compared using Mann-Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Active Coping post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Active Coping.

The current findings support literature given by Ernst et al. (2016) [140] in use of ACT in improving active engagement with stressors. One of

the six core components of ACT- committed action itself aims towards actively engaging in behavior that helps one lead a meaningful, values-based life. However, there is dearth of literature on use of ACT specifically for Active Coping. Thus, the current study's findings add to this gap in literature.

Denial:

In the Alcohol group, pre and post intervention scores on Denial were 2.13 and 2.20 respectively. This decrease in Denial scores was not significant.

In the Opioid group, pre and post intervention scores on Denial were 2.60 and 2.40 respectively. This decrease in Denial scores was not significant.

This indicates that there was no substantial difference in the use of Denial as a Coping Strategy for participants in both the groups, post the ACT intervention. Out of possible score range of 2-8, both the groups initially had minimal mean scores on Denial. This indicates that the participants already had marginal use of Denial as a Coping Strategy which didn't change much after the intervention as well. This shows that the participants acknowledged, accepted and took some responsibility for the problems that they were facing in life including substance use.

The Pre and Post intervention scores on Denial in Alcohol and Opioid groups were compared using Mann-Whitney test and the values obtained were not significant. So, the groups did not differ significantly in the use of Denial as a Coping Strategy pre and post the intervention.

ACT itself aims at committed action instead of experiential avoidance. The participants in the current study didn't engage in Denial to start with and hence not much change could be noticed post the intervention as well. Accepting responsibility for substance use is first step towards actually working towards abstinence. The researcher could not find relevant literature for the current finding.

Substance Use:

In the Alcohol group, pre and post intervention scores on Substance Use were 8.00 and 3.47 respectively. This decrease in Substance Use scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Substance Use were 8.00 and 3.27 respectively. This decrease in Substance Use scores was also significant at 0.01 level.

Out of total score of 8, both the groups initially had extremely high 8/8 mean scores on Substance Use. Substance Use was the highest Coping Strategy used by all the participants in both the groups.

The post intervention scores indicate that there was a substantial decrease in the use of Substance Use as a Coping Strategy for participants in both the groups after the ACT intervention.

Decrease in Substance Use was also one of the main implications of the present study.

The Pre and Post intervention scores on Substance Use in Alcohol and Opioid groups were compared using Mann-Whitney test and the values obtained were not significant. This indicates that even though both the groups showed substantial decrease in use of Substance Use post the intervention, there was no significant inter group difference. Thus, both the groups decreased similarly in the use of Substance Use as a Coping Strategy.

The current findings are supported by Hayes et al. (2004), [116] Batten et al. (2005), [117] Petersen et al. (2009), [119] Luoma et al. (2012), [127] Bricker et al. (2014), [133] Bahrami et al. (2017) [147] and Dindo et al. (2018). [148]

Emotional Support:

In the Alcohol group, pre and post intervention scores on Emotional Support were 3.93 and 5.40 respectively. This increase in Emotional Support scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Emotional Support were 3.93 and 5.27 respectively. This increase in Emotional Support scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Emotional Support as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Emotional Support in Alcohol and Opioid groups were compared using Mann-Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Emotional Support post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Emotional Support as a Coping Strategy.

Instrumental Support:

In the Alcohol group, pre and post intervention scores on Instrumental Support were 4.07 and 5.00 respectively. This increase in Instrumental Support scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Instrumental Support were 3.67 and 4.80 respectively. This increase in Instrumental Support scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Instrumental Support as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Instrumental Support in Alcohol and Opioid groups were compared using Student t-test and the

values obtained were not significant. This indicates that even though both the groups showed increase in Instrumental Support post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Instrumental Support as a Coping Strategy.

Use of ACT as a means of improving Coping Strategies has been supported by multiple studies. Yadavaia et al. (2012), [125] Abdolazimi et al. (2019) [153] and Kelley et al. (2020) [155] discuss the role of ACT in improving social support.

However, there has not been much literature on the effect of ACT on specific coping strategies of Emotional Support and Instrumental Support. The current study's findings add to this gap in literature.

Behavioral Disengagement:

In the Alcohol group, pre and post intervention scores on Behavioral Disengagement were 5.20 and 3.13 respectively. This decrease in Behavioral Disengagement scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Behavioral Disengagement were 4.53 and 2.93 respectively. This decrease in Behavioral Disengagement scores was also significant at 0.01 level.

This indicates that there was a substantial decrease in the use of Behavioral Disengagement as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Behavioral Disengagement in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed improvement (decreased score) in Behavioural Disengagement post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Behavioural Disengagement as a Coping Strategy.

Behavioural Disengagement may be conceptualized similarly as experiential avoidance which is one of the main component targets of ACT. Batten et al. (2005), [117] Twohig et al. (2007) [118] and Burrows (2013) [131] discussed the efficacy of ACT in reducing experiential avoidance.

However, there has not been much literature on the effect of ACT on specific coping strategy of Behavioural Disengagement. The current study's findings add to this gap in literature.

Venting:

In the Alcohol group, pre and post intervention scores on Venting were 3.87 and 4.60 respectively. This increase in Venting scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Venting were 3.53 and 4.67 respectively. This increase in Venting scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Venting as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Venting in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Venting post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Venting as a Coping Strategy.

There has not been much literature on the effect of ACT on specific coping strategy of Venting. The current study's findings add to this gap in literature.

Positive Reframing:

In the Alcohol group, pre and post intervention scores on Positive Reframing were 3.00 and 4.53 respectively. This increase in Positive Reframing was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Positive Reframing were 2.87 and 4.73 respectively. This increase in Positive Reframing scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Positive Reframing as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Positive Reframing in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Positive Reframing post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Positive Reframing as a Coping Strategy.

This finding has been supported by previous literature given by Salimi et al. (2019). [154]

Planning:

In the Alcohol group, pre and post intervention scores on Planning were 3.60 and 5.80 respectively. This increase in Planning was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Planning were 3.13 and 5.60 respectively. This increase in Planning scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Planning as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Planning in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Planning post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Planning as a Coping Strategy.

Similar results have been given by Salimi et al. (2019), [154] Arch et al. (2020) [161] and Barnes et al (2022). [163]

Humor:

In the Alcohol group, pre and post intervention scores on Humor were 2.27 and 3.20 respectively. This increase in Humor was significant at 0.01 level.

Humour was the least used Coping Strategy pre intervention (Mean= 2.07) in the Opioid group.

In the Opioid group, pre and post intervention scores on Humor were 2.07 and 2.87 respectively. This increase in Humor scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Humor as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Humor in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Humour post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Humour as a Coping Strategy.

There has not been much literature on the effect of ACT on specific coping strategy of Humour. The current study's findings add to this gap in literature.

Acceptance:

In the Alcohol group, pre and post intervention scores on Acceptance were 4.27 and 5.40 respectively. This increase in Acceptance was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Acceptance were 4.67 and 6.00 respectively. This increase in Acceptance scores was also significant at 0.01 level.

This indicates that there was a substantial increase in the use of Acceptance as a Coping Strategy for participants in both the groups, post the ACT intervention.

Promoting Acceptance was also one of the core components of the ACT intervention.

The Pre and Post intervention scores on Acceptance in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though both the groups showed increase in Acceptance post the intervention, there was no significant inter group difference. Thus, both the groups improved similarly in the use of Acceptance as a Coping Strategy.

As the name suggests, 'Acceptance' and Commitment Therapy aims to promote acceptance of life's challenges in order to further take committed action towards actively coping with those challenges. The current findings support the literature given by Strosahl et al. (1998), [114] Nordin et al. (2012), [130] Datta et al. (2016), [139] Bahrami et al. (2017), [147] Dindo et al. (2018) [148] and Vilardaga et al. (2020). [160]

Religion:

In the Alcohol group, pre and post intervention scores on Religion were 5.00 and 5.33 respectively. This increase in Religion was not significant.

In the Opioid group, pre and post intervention scores on Religion were 4.27 and 4.67 respectively. This increase in Religion scores was not significant.

This indicates that there wasn't a substantial increase in the use of Religion as a Coping Strategy for participants in both the groups, post the ACT intervention. The participants in both the groups were moderately using Religion as a means to deal with stressful situations in their lives.

The Pre and Post intervention scores on Religion in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. So, the groups did not differ significantly on the use of Religion as a Coping Strategy, pre and post the intervention.

Karekla et al. (2010), [121] Hayes et al. (2011) [123] and Fung (2014) [136] have discussed the association of Acceptance and Commitment Therapy with the philosophy of religion and religious coping.

Self Blame:

In the Alcohol group, pre and post intervention scores on Self Blame were 6.07 and 3.87 respectively. This decrease in Self Blame scores was significant at 0.01 level.

In the Opioid group, pre and post intervention scores on Self Blame were 6.40 and 3.93 respectively. This decrease in Self Blame scores was also significant at 0.01 level.

This indicates that there was a substantial decrease in the use of Self Blame as a Coping Strategy for participants in both the groups, post the ACT intervention.

The Pre and Post intervention scores on Self Blame in Alcohol and Opioid groups were compared using Mann- Whitney test and the values obtained were not significant. This indicates that even though

both the groups showed improvement (decreased score) in Self Blame post the intervention, the improvement was not significantly different for both the groups. Thus, both the groups improved similarly in the use of Self Blame as a Coping Strategy.

The finding is supported by literature given by Salimi et al. (2019). [154]

Thus on the basis of results discussed above, use of Acceptance and Commitment Therapy showed positive results in terms of Hopelessness, Resilience and many Coping Strategies in patients with Alcohol Use Disorder and Opioid Use Disorder. The findings were supported by previous literature. The study also filled in gaps in research by showing the effect of ACT on specific coping strategies of Self Distraction, Active Coping, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, and Humour. Patients in both the groups were also observed to have improved similarly post the ACT intervention. Thus, the use of ACT showed promising results as a therapeutic intervention in the field of Substance Use Disorders in Punjab.

LIMITATIONS

1. The sample size of the study was small.
2. The study was not representative of the population in terms of gender.
3. The sample was limited in terms of educational qualification and age group. Substance users are found among illiterates, adolescents and elderly as well.
4. The sample was limited in terms of substances included. Use of many other substances is prevalent in Punjab.
5. The current study was a hospital based study in a tertiary care hospital in an urban region of Punjab. This might limit the generalizability of the study to the Indian population.
6. The tools used in the study were self report tools. Even though the tools had good reliability and validity, there is risk of socially desirable answers in case of self report tools.
7. Use, modification and generalisation of a Western model of therapy- ACT on a predominantly Punjabi population has its own challenges.

SUMMARY AND CONCLUSION

The current study aimed to study the effect of Acceptance and Commitment Therapy on Hopelessness, Resilience and Coping Strategies in patients with Substance Use Disorder. The study was conducted in the Department of Psychiatry, Dayanand Medical College and Hospital, Ludhiana on 15 participants each diagnosed with Alcohol Use Disorder and Opioid Use Disorder as per DSM-5. Socio demographic profile of the subjects was taken. The subjects were initially assessed for Hopelessness on Beck Hopelessness Scale, Resilience on Brief Resilience Scale and Coping Strategies on Brief COPE. 5 individual sessions of Acceptance and Commitment Therapy were carried out with the participants. 1 session was conducted daily for 5 consecutive days. Post the intervention, participants were reassessed for Hopelessness, Resilience and Coping Strategies on the above mentioned measures. The data thus collected was tabulated and analysed using SPSS. The results obtained were discussed in light of existing research evidence.

The following points were noted in the current study:

- Mean age for Alcohol group was 39.60. Mean age for Opioid group was 38.80.
- All the participants in both the groups were males.
- Majority of the participants in both the groups were married (66.7% and 93.3%).
- Majority of the participants in Alcohol group were educated upto 12^{th} grade (40%). Majority of the participants in Opioid group were educated upto Graduation (40%).
- Majority of the participants in both the groups were semi skilled workers (33.3% and 40%) followed by farmers (26.7% and 33.3%).
- Majority of the participants in Alcohol group belonged to a Rural Background (60%). Majority of the participants in Opioid group belonged to an Urban Background (53.3%).

- Majority of the participants in Alcohol group belonged to a Nuclear family (53.3%). Majority of the participants in Opioid group belonged to an Extended family (53.3%).
- Majority of the participants in Alcohol group belonged to Lower Middle SES (46.7%) and Upper Middle SES (46.7%). Majority of the participants in Opioid group belonged to an Upper Middle SES (60%).
- There was a significant decrease in mean scores of Hopelessness post the ACT intervention in Alcohol (12.73 to 8.40) and Opioid (11.80 to 7.00) groups.
- There was a significant increase in mean scores of Resilience post the ACT intervention in Alcohol (1.95 to 3.28) and Opioid (2.21 to 3.74) groups.
- There was a significant decrease in mean score of Self Distraction (Coping Strategy) post the ACT intervention in Opioid (6.07 to 4.67) group. There was no significant effect of ACT on Self Distraction (Coping Strategy) in Alcohol group.
- There was a significant increase in mean scores of Active Coping (Coping Strategy) post the ACT intervention in Alcohol (3.53 to 5.87) and Opioid (3.80 to 6.27) groups.
- Denial was the least used Coping Strategy (Mean= 2.13) pre and post the ACT intervention in the Alcohol group.
- There was no significant effect of ACT on Denial (Coping Strategy) in both the groups.
- Substance Use was the highest Coping Strategy used by all the participants in both the groups.
- There was a significant decrease in mean scores of Substance Use (Coping Strategy) post the ACT intervention in Alcohol (8.00 to 3.47) and Opioid (8.00 to 3.27) groups.
- There was a significant increase in mean scores of Emotional Support (Coping Strategy) post the ACT intervention in Alcohol (3.93 to 5.40) and Opioid (3.93 to 5.27) groups.

- There was a significant increase in mean scores of Instrumental Support (Coping Strategy) post the ACT intervention in Alcohol (4.07 to 5.00) and Opioid (3.67 to 4.80) groups.
- There was a significant decrease in mean scores of Behavioural Disengagement (Coping Strategy) post the ACT intervention in Alcohol (5.20 to 3.13) and Opioid (4.53 to 2.93) groups.
- There was a significant increase in mean scores of Venting (Coping Strategy) post the ACT intervention in Alcohol (3.87 to 4.60) and Opioid (3.53 to 4.67) groups.
- There was a significant increase in mean scores of Positive Reframing (Coping Strategy) post the ACT intervention in Alcohol (3.00 to 4.53) and Opioid (2.87 to 4.73) groups.
- There was a significant increase in mean scores of Planning (Coping Strategy) post the ACT intervention in Alcohol (3.60 to 5.80) and Opioid (3.13 to 5.60) groups.
- Humour was the least used Coping Strategy pre intervention (Mean= 2.07) in the Opioid group.
- There was a significant increase in mean scores of Humour (Coping Strategy) post the ACT intervention in Alcohol (2.27 to 3.20) and Opioid (2.07 to 2.87) groups.
- There was a significant increase in mean scores of Acceptance (Coping Strategy) post the ACT intervention in Alcohol (4.27 to 5.40) and Opioid (4.67 to 6.00) groups.
- There was no significant effect of ACT on Religion (Coping Strategy) in both the groups.
- There was a significant decrease in mean scores of Self Blame (Coping Strategy) post the ACT intervention in Alcohol (6.07 to 3.87) and Opioid (6.40 to 3.93) groups.
- The Alcohol and Opioid groups did not differ significantly pre and post ACT intervention on Hopelessness.
- The Alcohol and Opioid groups did not differ significantly pre and post ACT intervention on Resilience.

- The Alcohol and Opioid groups did not differ significantly pre and post ACT intervention on Coping Strategies- Active Coping, Denial, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance, Religion and Self Blame.
- The Alcohol and Opioid groups differed significantly pre ACT intervention on Self Distraction (Coping Strategy). Post ACT intervention, the inter group difference was not significant.
- ACT showed positive results on Hopelessness, Resilience, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Alcohol group.
- ACT showed positive results on Hopelessness, Resilience, Self Distraction, Active Coping, Substance Use, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, Positive Reframing, Planning, Humour, Acceptance and Self Blame in Opioid group.

To conclude, Acceptance and Commitment Therapy showed positive results in terms of Hopelessness, Resilience and many Coping Strategies in patients with Alcohol Use Disorder and Opioid Use Disorder. The study also filled in research gaps by showing the effect of ACT on specific coping strategies of Self Distraction, Active Coping, Emotional Support, Instrumental Support, Behavioural Disengagement, Venting, and Humour. Thus, the use of ACT showed promising results as a therapeutic intervention in the field of Substance Use Disorders in Punjab. Future interventions for users of substance could be planned on an acceptance and commitment based model.

FUTURE DIRECTIONS

The findings of the present study showed the effectiveness of ACT in Hopelessness, Resilience and many Coping Strategies in patients with Alcohol Use Disorder and Opioid Use Disorder. Thus, future interventions in the field of substance use can be planned as per an ACT based model. Further research on the effectiveness of ACT on a Punjabi population could be done with a bigger sample size and including participants from all genders and all educational qualifications. Studies on use of ACT on other substances prevalent in Punjab like cannabinoids, sedatives, cocaine, stimulants, hallucinogens, tobacco, volatile solvents and prescription drugs could be very useful in planning effective therapeutic intervention. Comparison studies in the domain of substance use across urban and rural areas, comparison of efficacy of ACT and other therapy models could yield beneficial data. Other variables like triggers associated with substance use, social perception regarding substance use, comorbidities with other mental disorders could also be incorporated into in-depth studies on substance use in the region.

BIBLIOGRAPHY

1. National Cancer Institute. NCI dictionary of cancer terms; 2022.
2. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/substance
3. Association A. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5®). Washington, D.C.: American Psychiatric Publishing; 2013.
4. Jernigan DH, World Health Organization. Global status report: alcohol and young people. World Health Organization; 2001.
5. Asia. World Health Organization Regional Office for Prevention of Harm From Alcohol Use. Available from:http://apapaonline.org/data/Regional_Data/SEARO/Alcohol_Facts_and_Figures.pdf
6. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson JL. Harrison's principles of internal medicine. McGraw Hill; 2001.
7. National Institute on Alcohol Abuse and Alcoholism. ALCOHOL'S DAMAGING EFFECTS ON THE BRAIN. Nih.gov. National Institute on Alcohol Abuse and Alcoholism; 2015. Available from: https://pubs.niaaa.nih.gov/publications/aa63/aa63.htm
8. Gururaj G, Isaac MK, Subbakrishna DK, Ranjani R. Risk factors for completed suicides: a case-control study from Bangalore, India. Inj. Control Saf. Promot. 2004;11:183-91.
9. Benegal V, Velayudan A, Jain S. The social costs of alcoholism (Karnataka) NIMHANS J. 2000;18:67–76.
10. World Health Organization. Burden and socio-economic impact of alcohol: The Bangalore study. WHO Regional Office for South-East Asia; 2006]. Available from: http://www.searo.who.int/entity/mental_health/documents/9290222727.pdf .

11. Heath AC. Genetic Influences on Alcoholism Risk: A Review of Adoption and Twin Studies. Alcohol health and research world. 1995;19:166–71.
12. Park A, Sher KJ, Krull JL, Wood PK. Dual mechanisms underlying accentuation of risky drinking via fraternity/sorority affiliation: The role of personality, peer norms, and alcohol availability. J. Abnorm. Psychol. 2009;118:241–45.
13. Schwandt ML, Heilig M, Hommer DW, George DT, Ramchandani VA. Childhood trauma exposure and alcohol dependence severity in adulthood: mediation by emotional abuse severity and neuroticism. Alcohol. Clin. Exp. Res. 2013;37:984-92.
14. United Nations Office on Drugs and Crime. South Asia Regional Profile. India: United Nations Office on Drugs and Crime; 2005.
15. Ray R. National Survey on Extent, Pattern and Trends of Drug Abuse in India. Ministry of Social Justice and Empowerment. New Delhi: Government of India and United Nations Office on Drugs and Crime; 2004.
16. Bewley-Taylor D, Trace M. The funding of the United Nations office on drugs & crime; an unfinished jigsaw. The Beckley Foundation Drug Policy Programme; 2006.
17. Ambekar A, Kumar R, Rao R, Agrawal A, Kumar M, Mishra AK. Punjab opioid dependence survey. New Delhi: Ministry of Social Justice and Empowerment, Government of India; 2020.
18. Brat GA, Agniel D, Beam A, Yorkgitis B, Bicket M, Homer M, et al. Postsurgical prescriptions for opioid naive patients and association with overdose and misuse: retrospective cohort study. BMJ. 2018;360:j5790.
19. Dick DM, Agrawal A. The genetics of alcohol and other drug dependence. Alcohol Res Health. 2008;31:111-8.
20. Sharma B, Bruner A, Barnett G, Fishman M. Opioid Use Disorders. Child Adolesc Psychiatr Clin N Am. 2016;25:473-87.

21. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/hope.
22. Snyder CR. The psychology of hope: You can get there from here. Simon and Schuster; 1994.
23. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/hopelessness.
24. Scioli A, Biller H. Hope in the age of anxiety. Oxford University Press; 2009 Sep 3.
25. Abramson LY, Metalsky GI, Alloy LB. Hopelessness depression: A theory-based subtype of depression. Psychol. Rev. 1989;96:358.
26. Beck AT, Rush AJ, Shaw BF, Emery G. Cognition and Depression; 1982.
27. Alloy LB, Abramson LY, Francis EL. Do negative cognitive styles confer vulnerability to depression?. Curr Dir Psychol Sci. 1999;8:128-32.
28. Beck AT, Brown G, Steer RA. Prediction of eventual suicide in psychiatric inpatients by clinical ratings of hopelessness. J Consult Clin Psychol. 1989;57:309–10.
29. de Terte I, Stephens C. Psychological resilience of workers in high-risk occupations. Stress Health. 2014;30:353-5.
30. Robertson IT, Cooper CL, Sarkar M, Curran T. Resilience training in the workplace from 2003 to 2014: A systematic review. J. Occup. Organ. Psychol. 2015;88:533-62.
31. Richardson GE. The metatheory of resilience and resiliency. J. Clin. Psychol. 2002;58:307-21.
32. Antonovsky A. Health, stress, and coping. New perspectives on mental and physical well-being. San Francisco, Calif : Jossey-Bass; 1979. p. 12-37.
33. Ahmed R, Sayed YM, Nell J, Somhlaba NZ, Karriem A. Poverty, protests and pandemics: what can we learn from community resilience?. S Afr J Psychol. 2021;51:478-80.

34. Joseph G, Bice-Stephens MW. Act resilient. The United States Army Medical Department Journal. 2014 Apr 1:83-6.
35. Healy S. Cultural resilience, identity and the restructuring of political power in Bolivia. In11th Biennial Conference of the International Association for the Study of Common Property; Bali, Indonesia 2006 Jun.
36. Fergus S, Zimmerman M. Adolescent resilience: A Framework for understanding health development in the face of risk. Annu. Rev. Public Health. 2005;26:399–419.
37. Ginsburg K, Kinsman S. Reaching teens. Elk Grove Village, Illinois: American Academy of Pediatrics; 2014.
38. Association AP. The road to resilience; 2014.
39. Folkman S, Moskowitz JT. Coping: pitfalls and promise. Annu Rev Psychol. 2004;55:745-74.
40. Venner M. [Adjustment, coping and defense mechanisms--deciding factors in the therapeutic process]. Z Gesamte Inn Med. 1988;43:40-3.
41. de Boer SF, Buwalda B, Koolhaas JM. Untangling the neurobiology of coping styles in rodents: Towards neural mechanisms underlying individual differences in disease susceptibility. Neurosci Biobehav Rev. 2017;74:401-22.
42. Schwarzer R, Knoll N. Functional roles of social support within the stress and coping process: A theoretical and empirical overview. Int. J. Psychol. 2007;42:243-52.
43. Schwarzer R, Taubert S. Tenacious goal pursuits and striving toward personal growth: Proactive coping. In: Frydenberg E (Ed.). Beyond coping: Meeting goals, visions and challenges. London: Oxford University Press; 2002. p. 19-35.
44. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/reactive-coping.
45. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/anticipatory-coping.

46. APA Dictionary of Psychology. Dictionary.apa.org. 2022. Available from: https://dictionary.apa.org/preventive-coping.
47. Biggs A, Brough P, Drummond S. Lazarus and Folkman's psychological stress and coping theory. The handbook of stress and health: A guide to research and practice. 2017 Apr 17:351-64.
48. Finset A, Steine S, Haugli L, Steen E, Laerum E. The brief approach/avoidance coping questionnaire: Development and validation. Psychol Health Med. 2002;7:75-85.
49. Folkman S, Lazarus RS. Coping as a mediator of emotion. J. Pers. Soc. Psychol.. 1988;54:466.
50. Harris R. Embracing your demons: An overview of acceptance and commitment therapy. Psychotherapy in Australia. 2006;12:2-8.
51. Harris R. ACT made simple: An easy-to-read primer on acceptance and commitment therapy. New Harbinger Publications; 2019 May 1.
52. Webster M. Introduction to acceptance and commitment therapy. Adv Psychiatr Treat. 2011;17:309-16.
53. Hayes SC, Strosahl KD, Wilson KG. Acceptance and commitment therapy. Washington, DC: American Psychological Association; 2009.
54. Swadi H. Drug abuse in children and adolescents: an update. Arch. Dis. Childh. 1992;67:1245.
55. Dallman MF, Pecoraro NC, la Fleur SE. Chronic stress and comfort foods: self-medication and abdominal obesity. Brain Behav. Immun. 2005;19:275-80.
56. Ziedonis D, Brady K. Dual diagnosis in primary care: detecting and treating both the addiction and mental illness. Med. Clin. N. Am. 1997;81:1017-36.
57. Rahman L. Alcohol prohibition and addictive consumption in India. London: London School of Economics; 2003.

58. Ray R. The extent, pattern and trends of drug abuse in India: National survey. Ministry of Social Justice and Empowerment, Government of India & United Nations Office on Drugs and Crime, Regional Office for South Asia; 2004.
59. Kalivas PW, Volkow ND. The neural basis of addiction: a pathology of motivation and choice. Am. J. Psychiatry. 2005;162:1403-13.
60. Saddichha S, Sinha BN, Khess CR. The role of gateway drugs and psychosocial factors in substance dependence in Eastern India. Int J Psychiatry Med. 2007;37:257-66.
61. Rani MA, Sathiyaskaran BW. Mental Health symptoms and substance use among urban school going adolescents. Journal of Indian Association for Child and Adolescent Mental Health. 2013;9:102-35.
62. Barry CL, McGinty EE, Pescosolido BA, Goldman HH. Stigma, discrimination, treatment effectiveness, and policy: public views about drug addiction and mental illness. Psychiatr. Serv. 2014;65:1269-72.
63. Sher KJ, editor. The Oxford Handbook of Substance Use and Substance Use Disorders: Volume 2. Oxford University Press; 2016 Jul 13.
64. Saluja BS, Grover S, Irpati AS, Mattoo SK, Basu D. Drug dependence in adolescents 1978–2003: a clinical-based observation from North India. Indian J. Pediatr. 2007;74:455-8.
65. Saxena V, Saxena Y, Kishore G, Kumar P. A study on substance abuse among school going male adolescents of Doiwala Block, District Dehradun. Indian J. Public Health. 2010;54:197.
66. Gupta VK, Kaur P, Singh G, Kaur A, Sidhu BS. A study of profile of patients admitted in the drug de-addiction centres in the state of Punjab. International Journal of Research in Health Sciences. 2013;1:53-61.

67. Arora R, Mahajan S. Epidemiological study on drug abusers in rural population of Amritsar (Punjab). Int J Contemp Med Res. 2016;3:3018-20.
68. Arora H, Gupta S, Kajal KS, Padda P, Monga S, Devgan S, et al. Evaluation of socio-demographic profile of the drug abusers visiting drug deaddiction centre at Faridkot, Punjab. J Adv Med Dent Scie Res. 2016;4:136.
69. Nagrale N, Wankhade T, Jain K. Prevalence and pattern of substance abuse among patients presenting to De-Addiction centres: A study from central India. Int. J. Med. Toxicol. Leg. Med. 2018;21:1-2.
70. Chavan BS, Garg R, Das S, Puri S, Banavaram AA. Prevalence of substance use disorders in Punjab: Findings from National Mental Health Survey. Indian J. Med. Res. 2019;149:489.
71. Randhawa A, Brar MS, Kumari B, Chaudhary N. Sociodemographic profile and pattern of substance abusers: A retrospective study to unveil the public health problem of Punjab. Fam. Med. Prim. Care Rev. 2020;9:3338.
72. Weissman AN, Beck AT, Kovacs M. Drug abuse, hopelessness, and suicidal behavior. Int J Addict. 1979;14:451-64.
73. Page RM, Allen O, Moore L, Hewitt C. Co-Occurrence of Substance Use and Loneliness as a Risk Factor for Adolescent Hopelessness. J. Sch. Health. 1993;63:104-8.
74. Bolland JM. Hopelessness and risk behaviour among adolescents living in high-poverty inner-city neighbourhoods. J. Adolesc. 2003;26:145-58.
75. Kuo WH, Gallo JJ, Eaton WW. Hopelessness, depression, substance disorder, and suicidality--a 13-year community-based study. Soc Psychiatry Psychiatr Epidemiol. 2004;39:497-501.
76. Malmberg M, Overbeek G, Monshouwer K, Lammers J, Vollebergh WA, Engels RC. Substance use risk profiles and associations with early substance use in adolescence. J. Behav. Med. 2010;33:474-85.

77. Du H, Li X, Lin D, Tam CC. Hopelessness, individualism, collectivism, and substance use among young rural-to-urban migrants in China. Health Psychol. Behav. Med. 2014;2:211-20.
78. Karamat M, Ahmed S. Collective self-esteem and hopelessness among people with substance use. Pakistan Journal of Psychology. 2015;46:69-80.
79. Paiva CB, Ferreira IB, Bosa VL, Narvaez JC. Depression, anxiety, hopelessness and quality of life in users of cocaine/crack in outpatient treatment. Trends Psychiatry Psychother. 2017;39:34-42.
80. Niranjjan R, Sarkar S, Balajee K, Srinivasan M. Psychological distress, hopelessness and health service needs of late adolescents in rural Pondicherry, South India. Int J Community Med Public Health. 2018;5:1109-15.
81. Soylar P, Dogan U. The relationship between spiritual well-being and hopelessness levels of substance users. Medicine. 2020;9:186-90.
82. Luthar SS, Cicchetti D, Becker B. The construct of resilience: a critical evaluation and guidelines for future work. Child Dev. 2000;71:543–62.
83. Bowland S. Aging in place or being warehoused? African American trauma survivors in mixed-age housing. Traumatology (Tallahass Fla). 2015;21:172–80.
84. Fadardi JS, Azad H, Nemati A. The relationship between resilience, motivational structure, and substance use. Procedia Soc Behav Sci. 2010;5:1956-60.
85. Burnett Jr HJ, Witzel K, Allers K, McBride DC. Understanding the relationship of trauma, substance use, and resilience among religiously affiliated university students. J. Christ. Educ. 2016;25:317-34.
86. Goodman R. Contemporary trauma theory and trauma-informed care in substance use disorders: A conceptual model for integrating coping and resilience. Adv Soc Work. 2017;18:186-201.

87. Hodder RK, Freund M, Wolfenden L, Bowman J, Nepal S, Dray J, et al. Systematic review of universal school-based ‘resilience’ interventions targeting adolescent tobacco, alcohol or illicit substance use: A meta-analysis. Prev. Med. 2017;100:248-68.
88. Ahmad A, Altaf M, Jan T, Hassan S, Majeed R, Ahmad N. Socio-demographic profile, personality profile and resilience among patients with substance use disorder. Indian Journal of Health & Wellbeing. 2017;8:1049-51.
89. Martz ME, Zucker RA, Schulenberg JE, Heitzeg MM. Psychosocial and neural indicators of resilience among youth with a family history of substance use disorder. Drug Alcohol Depend. 2018;185:198-206.
90. Yang C, Zhou Y, Cao Q, Xia M, An J. The relationship between self-control and self-efficacy among patients with substance use disorders: resilience and self-esteem as mediators. Front. Psychiatry. 2019;10:388.
91. McKinley CE, Theall KP. Weaving Healthy Families Program: promoting resilience while reducing violence and substance use. Res Soc Work Pract. 2021;31:476-92.
92. Rathinam B, Ezhumalai S. Resilience among Abstinent Individuals with Substance Use Disorder. Indian J Psychiatr Soc Work 2021;12:96-102.
93. Valsala P, Devanathan S. Mental resilience in the context of alcohol use—a qualitative study in a tribal community in South India. J. Ethn. Subst. Abuse. 2021;14:1-25.
94. Folkman S, Lazarus RS, Gruen RJ, DeLongis A. Appraisal, coping, health status, and psychological symptoms. J. Pers. Soc. Psychol. 1986;50:571.
95. Cooper ML, Russell M, Skinner JB, Frone MR, Mudar P. Stress and alcohol use: moderating effects of gender, coping, and alcohol expectancies. J Abnorm Psychol. 1992;101:139-52.
96. Sinha BK, Willson LR, Watson DC. Stress and coping among students in India and Canada. Can J Behav Sci. 2000;32:218-25.

97. Veenstra MY, Lemmens PH, Friesema IH, Tan FE, Garretsen HF, Knottnerus JA, et al. Coping style mediates impact of stress on alcohol use: a prospective population-based study. Addiction. 2007;102:1890-8.
98. Bavojdan MR, Towhidi A, Rahmati A. The relationship between mental health and general self-efficacy beliefs, coping strategies and locus of control in male drug abusers. Addiction & health. 2011;3:111.
99. Majer JM, Droege JR, Jason LA. Coping strategies in 12-step recovery: More evidence for categorical involvement. J Groups Addict Recover. 2012;7:3-14.
100. Nadkarni A, Dabholkar H, McCambridge J, Bhat B, Kumar S, Mohanraj R, Murthy P, Patel V. The explanatory models and coping strategies for alcohol use disorders: An exploratory qualitative study from India. Asian J Psychiatr. 2013;6:521-7.
101. Sudraba V, Millere A, Deklava L, Millere E, Zumente Z, Circenis K, et al. Stress coping strategies of drug and alcohol addicted patients in Latvia. Procedia Soc Behav Sci. 2015;205:632-6.
102. Church S, Bhatia U, Velleman R, Velleman G, Orford J, Rane A, et al. Coping strategies and support structures of addiction affected families: A qualitative study from Goa, India. Fam Syst Health. 2018;36:216.
103. Galaif ER, Sussman S, Chou CP, Wills TA. Longitudinal relations among depression, stress, and coping in high risk youth. J. Youth Adolesc. 2003;32:243-58.
104. Karatas Z, Cakar FS. Self-Esteem and Hopelessness, and Resiliency: An Exploratory Study of Adolescents in Turkey. Int. Educ. Stud. 2011;4:84-91.
105. Gooding PA, Hurst A, Johnson J, Tarrier N. Psychological resilience in young and older adults. Int. J. Geriatr. Psychiatry. 2012;27:262-70.
106. Hjemdal O, Friborg O, Stiles TC. Resilience is a good predictor of hopelessness even after accounting for stressful life events,

mood and personality (NEO-PI-R). Scand. J. Psychol. 2012;53:174-80.

107. Grover S, Sarkar S, Bhalla A, Chakrabarti S, Avasthi A. Religious coping among self-harm attempters brought to emergency setting in India. Asian J Psychiatr. 2016;23:78-86.
108. Somasundaram RO, Devamani KA. A comparative study on resilience, perceived social support and hopelessness among cancer patients treated with curative and palliative care. Indian J. Palliat. Care. 2016;22:135.
109. Herbert HS, Manjula M. Stress-coping and factors contributing to resilience in college students: An exploratory study from India. Indian J. Clin. Psychol. 2017;44:26-34.
110. Rudzinski K, McDonough P, Gartner R, Strike C. Is there room for resilience? A scoping review and critique of substance use literature and its utilization of the concept of resilience. Subst. Abuse: Treat. Prev. Policy. 2017;12:1-35.
111. Ravindran OS, Shankar A, Murthy T. A comparative study on perceived stress, coping, quality of life, and hopelessness between cancer patients and survivors. Indian J. Palliat. Care. 2019;25:414.
112. Stanley S, Mettilda Buvaneswari G. Do stress and coping influence resilience in social work students? A longitudinal and comparative study from India. International Social Work. 202;2020:1-14.
113. Collazzoni A, Stratta P, Pacitti F, Rossi A, Santarelli V, Bustini M, et al. Resilience as a Mediator Between Interpersonal Risk Factors and Hopelessness in Depression. Front Psychiatry. 2020;11:10.
114. Strosahl KD, Hayes SC, Bergan J, Romano P. Assessing the field effectiveness of acceptance and commitment therapy: An example of the manipulated training research method Behav. Ther. 1998;29:35-63.
115. Heffner M, Eifert GH, Parker BT, Hernandez DH, Sperry JA. Valued directions: Acceptance and commitment therapy in the

treatment of alcohol dependence. Cogn Behav Pract. 2003;10:378-83.

116. Hayes SC, Wilson KG, Gifford EV, Bissett R, Piasecki M, Batten SV, et al. A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. Behav. Ther. 2004;35:667-88.
117. Batten SV, Hayes SC. Acceptance and commitment therapy in the treatment of comorbid substance abuse and post-traumatic stress disorder: A case study. Clin. Case Stud. 2005;4:246-62.
118. Twohig MP, Shoenberger D, Hayes SC. A preliminary investigation of acceptance and commitment therapy as a treatment for marijuana dependence in adults. J. Appl. Behav. Anal. 2007;40:619-32.
119. Petersen CL, Zettle RD. Treating inpatients with comorbid depression and alcohol use disorders: A comparison of acceptance and commitment therapy versus treatment as usual. Psychol. Rec. 2009;59:521-36.
120. Smout MF, Longo M, Harrison S, Minniti R, Wickes W, White JM. Psychosocial treatment for methamphetamine use disorders: A preliminary randomized controlled trial of cognitive behavior therapy and acceptance and commitment therapy. Subst Abus. 2010;31:98-107.
121. Karekla M, Constantinou M. Religious coping and cancer: Proposing an acceptance and commitment therapy approach. Cogn Behav Pract. 2010;17:371-81.
122. Moran DJ. ACT for leadership: Using acceptance and commitment training to develop crisis-resilient change managers. International Journal of Behavioral Consultation and Therapy. 2011;7:66.
123. Hayes SC, Strosahl KD, Wilson KG. Acceptance and commitment therapy: The process and practice of mindful change. Guilford press; 2011.

124. Hayes SC, Pistorello J, Levin ME. Acceptance and commitment therapy as a unified model of behavior change. J. Couns. Psychol. 2012;40:976-1002.
125. Yadavaia JE, Hayes SC. Acceptance and commitment therapy for self-stigma around sexual orientation: A multiple baseline evaluation. Cogn Behav Pract. 2012;19:545-59.
126. Weineland S, Arvidsson D, Kakoulidis TP, Dahl J. Acceptance and commitment therapy for bariatric surgery patients, a pilot RCT. Obes Res Clin Pract. 2012;6:e21-30.
127. Luoma JB, Kohlenberg BS, Hayes SC, Fletcher L. Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. J Consult Clin Psychol. 2012;80:43-53.
128. Morton J, Snowdon S, Gopold M, Guymer E. Acceptance and commitment therapy group treatment for symptoms of borderline personality disorder: A public sector pilot study. Cogn Behav Pract. 2012;19:527-44.
129. Stotts AL, Green C, Masuda A, Grabowski J, Wilson K, Northrup TF, et al. A stage I pilot study of acceptance and commitment therapy for methadone detoxification. Drug and alcohol dependence. 2012;125:215-22.
130. Nordin L, Rorsman Ia. Cognitive behavioural therapy in multiple sclerosis: a randomized controlled pilot study of acceptance and commitment therapy. J Rehabil Med. 2012;44:87-90.
131. Burrows CJ. Acceptance and commitment therapy with survivors of adult sexual assault: A case study. Clin. Case Stud. 2013;12:246-59.
132. Bricker J, Wyszynski C, Comstock B, Heffner JL. Pilot randomized controlled trial of web-based acceptance and commitment therapy for smoking cessation. Nicotine Tob. Res. 2013;15:1756-64.
133. Bricker JB, Bush T, Zbikowski SM, Mercer LD, Heffner JL. Randomized trial of telephone-delivered acceptance and commitment therapy versus cognitive behavioral therapy for

smoking cessation: a pilot study. Nicotine Tob Res. 2014;16:1446-54.

134. Bricker JB, Mull KE, Kientz JA, Vilardaga R, Mercer LD, Akioka KJ, et al. Randomized, controlled pilot trial of a smartphone app for smoking cessation using acceptance and commitment therapy. Drug Alcohol Depend. 2014;143:87-94.
135. Menéndez A, Fernández P, Rodríguez F, Villagrá P. Long-term outcomes of Acceptance and Commitment Therapy in drug-dependent female inmates: A randomized controlled trial. Int. J. Clin. Health Psychol. 2014;14:18-27.
136. Fung K. Acceptance and commitment therapy: Western adoption of Buddhist tenets?. Transcult. Psychiatry. 2015;52:561-76.
137. George B, De Guzman RG. Effectiveness of acceptance and commitment therapy based intervention program (ACTP) on perceived stress and emotion regulation among alcoholics in Kerala, India. Indian Journal of Positive Psychology. 2015;6:10.
138. Pur RA, Ghorbani M. The effectiveness of acceptance and commitment therapy on stress coping strategies in women with ulcerative colitis. Iranian J. Gastroenterol. Hepatol. 2015;20:1-9.
139. Datta A, Aditya C, Chakraborty A, Das P, Mukhopadhyay A. The potential utility of acceptance and commitment therapy (act) for reducing stress and improving wellbeing in cancer patients in Kolkata. J Cancer Educ. 2016;31:721-9.
140. Ernst MM, Mellon MW. Acceptance and commitment therapy (ACT) to foster resilience in pediatric chronic illness. In: Child and adolescent resilience within medical contexts Springer, Cham; 2016. p. 193-207.
141. Santiago PN, Gall TL. Acceptance and commitment therapy as a spiritually integrated psychotherapy. Couns. Values. 2016;61:239-54.
142. Towsyfyan N, Hossein Sabet F, Borjali A. The Effectiveness of Acceptance and Commitment Therapy on the Major Depression

Disorder in Adolescence. Achievements of Clinical Psychology. 2016;2:23-38.

143. Shayeghian Z, Hassanabadi H, Aguilar-Vafaie ME, Amiri P, Besharat MA. A randomized controlled trial of acceptance and commitment therapy for type 2 diabetes management: The moderating role of coping styles. PloS one. 2016;11:e0166599.
144. Dadashi S, Momeni F. Effectiveness of acceptance and commitment therapy on hope in women with breast cancer undergoing chemotherapy. Practice in Clinical Psychology. 2017;5:107-14.
145. Seyyedjafari J, Motamedi A, Mehradsadr M, Olamaie Kopaei M, Hashemian S. The effectiveness of acceptance and commitment therapy (ACT) on resilience in elderlies. Aging Psychology. 2017;3:21-9.
146. Montazer A, Nemati F, Dehghani F, Fallah T. Efficacy of Acceptance and Commitment Therapy on breast cancer female patients' hopeIran. J. Cancer Prev. 2017;10:1-4.
147. Bahrami S, Asghari F. A controlled trial of acceptance and commitment therapy for addiction severity in methamphetamine users: Preliminary study. Arch. Psychiatry Psychother. 2017;19:49-55.
148. Dindo L, Zimmerman MB, Hadlandsmyth K, StMarie B, Embree J, Marchman J, et al. Acceptance and commitment therapy for prevention of chronic postsurgical pain and opioid use in at-risk veterans: a pilot randomized controlled study. J. Pain. 2018;19:1211-21.
149. Sadeghi F, Hassani F, Emamipour S, Mirzaei H. Effect of Acceptance and Commitment Group Therapy on Quality of Life and Resilience of Women With Breast Cancer. Arch Breast Cancer. 2018;5:111-7.
150. Udell CJ, Ruddy JL, Procento PM. Effectiveness of acceptance and commitment therapy in increasing resilience and reducing attrition of injured US Navy recruits. Mil. Med. 2018;183:e603-11.

151. Ghorbani Amir HA, Moradi O, Arefi M, Ahmadian H. The Effectiveness of Acceptance and Commitment Therapy on Cognitive-Emotional Regulation, Resilience, and Self-control Strategies in Divorced Women. Avicenna. J. Neuro. Psycho. 2019;6:195-202.
152. Moghbel Esfahani S, Haghayegh SA. The effectiveness of Acceptance and Commitment Therapy on Resilience, meaning in life, and family function in family caregivers of patients with Schizophrenia. The Horizon of Medical Sciences. 2019;25:298-311.
153. Abdolazimi M, Niknam M. The Effectiveness of acceptance and commitment therapy on social support perception and body dissatisfaction in the elderly. Aging Psychology. 2019;5:13-25.
154. Salimi M, Mahdavi A, Yeghaneh SS, Abedin M, Hajhosseini M. The effectiveness of group based acceptance and commitment therapy (ACT) on emotion cognitive regulation strategies in mothers of children with autism spectrum. Maedica. 2019;14:240.
155. Kelly MM, Reilly ED, Ahern M, Fukuda S. Improving social support for a veteran with PTSD using a manualized acceptance and commitment therapy approach. Clin. Case Stud. 2020;19:189-204.
156. Araghi Y, Bazzazian S, Amirimajd M, Ghamari M. Comparing the Effectiveness of Meta-cognitive education Group and Acceptance and Commitment Therapy on Hopelessness of Divorcing Demanding Couples. Counseling Culture and Psycotherapy. 2020;11:237-66.
157. Gul M, Aqeel M. Acceptance and commitment therapy for treatment of stigma and shame in substance use disorders: a double-blind, parallel-group, randomized controlled trial. J. Subst. Use. 2021;26:413-9.
158. Bani Hashemi S, Hatami M, Hasani J, Sahebi A. Comparing effectiveness of the cognitive-behavioral therapy, reality therapy, and acceptance and commitment therapy on quality of life,

general health, and coping strategies of chronic patient's caregivers. J. Clin. Psychol. 2020;12:63-76.

159. Ryan AK, Pakenham KI, Burton NW. A pilot evaluation of a group acceptance and commitment therapy-informed resilience training program for people with diabetes. Aust. Psychol. 2020;55:196-207.
160. Vilardaga JC, Winger JG, Teo I, Owen L, Sutton LM, Keefe FJ, et al. Coping skills training and acceptance and commitment therapy for symptom management: feasibility and acceptability of a brief telephone-delivered protocol for patients with advanced cancer. J. Pain Symptom Manag. 2020;59:270-8.
161. Arch JJ, Fishbein JN, Ferris MC, Mitchell JL, Levin ME, Slivjak ET, et al. Acceptability, feasibility, and efficacy potential of a multimodal acceptance and commitment therapy intervention to address psychosocial and advance care planning needs among anxious and depressed adults with metastatic cancer. J. Palliat. Med.. 2020;23:1380-5.
162. Smkhani Akbarinejhad H, Bayrampour O, Faroughi P. Comparison of the effectiveness of logotherapy and treatment based on acceptance and commitment on the death anxiety, resilience and hopelessness of women with multiple sclerosis. Medical Science Journal of Islamic Azad Univesity-Tehran Medical Branch. 2021;31:97-106.
163. Barnes SM, Borges LM, Sorensen D, Smith GP, Bahraini NH, Walser RD. Safety Planning Within Acceptance and Commitment Therapy. Cognitive and Behavioral Practice; 2022.
164. Kaur K. Drug abuse! Problem is intense in Punjab, India. Human Biology Review. 2017;6:20-9.
165. Saleem SM. Modified Kuppuswamy socioeconomic scale updated for the year 2019. Indian J Forensic Community Med. 2019;6:1-3.
166. Beck AT, Steer RA, Pompili M. BHS, Beck hopelessness scale: manual. San Antonio, TX: Psychological corporation; 1988.

167. Bouvard M, Charles S, Guerin J, Aimard G, Cottraux J. Study of Beck's hopelessness scale. Validation and factor analysis. L'encephale. 1992;18:237-40.
168. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: assessing the ability to bounce back. Int J Behav Med. 2008;15:194-200.
169. Carver CS. You want to measure coping but your protocol'too long: Consider the brief cope. International journal of behavioral medicine. 1997;4:92-100.
170. Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. J. Pers. Soc. Psychol. 1989;56:267.
171. Hayes SC, Wilson KG, Gifford EV, Bissett R, Piasecki M, Batten SV, et al. A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. Behavior therapy. 2004;35:667-88.

KEYS TO MASTER CHART

S.No.	Serial Number
SES	Socio economic status
BHS	Beck Hopelessness Scale
BRS	Brief Resilience Scale
SD	Self Distraction
AC	Active Coping
D	Denial
SU	Substance Use
ES	Emotional Support
IS	Instrumental Support
BD	Behavioural Disengagement
V	Venting
PR	Positive Reframing
Pl	Planning
H	Humor
Acc	Acceptance
Rel	Religion
SB	Self Blame
M	Married
UM	Unmarried
Div	Divorced
Sep	Separated
Grad	Graduate
Post Grad	Post Graduate
Prof	Professional
N	Nuclear Family
J	Joint Family
E	Extended Family

U	Upper SES
UM	Upper Middle SES
LM	Lower Middle SES
UL	Upper Lower SES
L	Lower SES
NS	Not Significant

GROUP 1- ALCOHOL

S. No.	MRD No.	Name	Age	Gender	Marital status	Education	Occupation	Address	Family Type	SES	Diagnosis	BHS Pre (20)	BHS Post (20)	BRS Pre (6)	BRS Post (6)	SD Pre (8)	SD Post (8)	AC Pre (8)	AC Post (8)	D Pre (8)	D Post (8)
1	1222582	GS	32	Male	UM	Grad	Prof	Rural	N	UM	Alcohol	8	3	2.8	4	6	5	5	6	2	2
2	57261	GS	34	Male	Div	10th	Semi Skilled	Rural	N	LM	Alcohol	17	11	2.2	3	3	4	2	5	2	2
3	1261550	MS	31	Male	UM	12th	Unemployed	Urban	J	LM	Alcohol	17	10	1.3	3	4	5	5	8	2	2
4	1226232	JS	54	Male	M	Grad	Prof	Urban	N	UM	Alcohol	10	5	2	3.2	4	3	3	6	2	2
5	1229448	TS	44	Male	UM	10th	Semi Skilled	Rural	N	LM	Alcohol	20	12	1	2	4	3	2	5	2	2
6	1229623	HS	33	Male	M	12th	Farmer	Rural	J	LM	Alcohol	5	3	3.2	4.4	3	4	5	6	3	2
7	709234	AK	51	Male	M	12th	Semi Skilled	Rural	E	UM	Alcohol	4	2	3	3.5	5	4	5	7	2	2
8	1205407	GS	28	Male	UM	Diploma	Shopkeeper	Urban	N	UM	Alcohol	9	6	1.5	3	6	6	3	6	2	2
9	618572	SS	55	Male	M	8th	Semi Skilled	Urban	J	UM	Alcohol	17	13	2	4.4	3	4	4	7	2	2
10	1230489	DS	45	Male	M	8th	Farmer	Rural	E	UM	Alcohol	20	15	2	3	5	5	3	6	2	2
11	1231378	SS	34	Male	M	12th	Farmer	Rural	E	LM	Alcohol	10	7	1.5	3	4	4	4	6	3	2
12	1231460	MG	33	Male	M	Grad	Unemployed	Urban	N	UM	Alcohol	19	15	2.3	4.5	5	4	3	6	2	2
13	1166097	TS	35	Male	M	12th	Semi Skilled	Rural	N	LM	Alcohol	11	8	1.8	3	7	6	4	5	2	3
14	1232915	JS	34	Male	M	12th	Farmer	Rural	E	LM	Alcohol	7	4	1	2	3	4	2	4	2	3
15	1219059	BS	51	Male	M	Post Grad	Prof	Urban	N	U	Alcohol	17	12	1.7	3.2	6	6	3	5	2	3

GROUP 1- ALCOHOL

S. No.	MRD No.	Name	SU Pre (8)	SU Post (8)	ES Pre (8)	ES Post (8)	IS Pre (8)	IS Post (8)	BD Pre (8)	BD Post (8)	V Pre (8)	V Post (8)	PR Pre (8)	PR Post (8)	Pl Pre (8)	Pl Post (8)	H Pre (8)	H Post (8)	Acc Pre (8)	Acc Post (8)	Rel Pre (8)	Rel Post (8)	SB Pre (8)	SB Post (8)
1	1222582	GS	8	3	6	6	2	4	4	2	4	4	3	5	4	6	5	5	6	7	6	6	5	3
2	57261	GS	8	3	3	5	6	6	6	2	5	5	2	4	4	5	2	3	7	7	4	5	8	3
3	1261550	MS	8	2	4	5	5	6	2	2	6	5	3	5	4	7	2	3	4	5	7	7	4	3
4	1226232	JS	8	2	2	4	2	3	4	3	2	4	4	4	2	4	2	3	5	6	4	4	4	4
5	1229448	TS	8	3	3	5	4	5	8	5	5	5	2	4	2	5	2	3	3	4	5	6	7	5
6	1229623	HS	8	5	4	5	6	6	3	2	3	4	8	8	6	6	3	4	4	5	8	8	3	2
7	709234	AK	8	5	4	5	4	5	2	2	3	4	3	4	5	6	2	3	4	4	6	6	2	2
8	1205407	GS	8	4	4	5	4	4	6	3	4	5	3	4	4	6	2	2	4	5	6	5	7	4
9	618572	SS	8	2	5	7	6	7	6	4	4	5	2	5	4	7	2	4	4	7	5	6	7	3
10	1230489	DS	8	2	3	5	4	5	8	3	4	4	2	4	4	6	2	3	3	4	5	6	7	5
11	1231378	SS	8	4	4	7	4	6	7	4	4	4	4	6	4	7	2	3	4	5	7	6	8	4
12	1231460	MG	8	2	5	6	4	5	2	2	4	5	2	4	2	7	2	3	4	6	4	5	8	5
13	1166097	TS	8	5	4	5	4	5	7	5	4	5	2	3	4	5	2	3	4	5	4	4	7	4
14	1232915	JS	8	5	4	6	4	5	6	3	4	6	2	4	2	5	2	3	4	5	2	3	8	6
15	1219059	BS	8	5	4	5	2	3	7	5	2	4	3	4	3	5	2	3	4	6	2	3	6	5

GROUP 2- OPIOID																				
S. No.	MRD No.	Name	Age	Gender	Marital status	Education	Occupation	Address	Family Type	SES	Diagnosis	BHS Pre (20)	BHS Post (20)	BRS Pre (6)	BRS Post (6)	SD Pre (8)	SD Post (8)	AC Pre (8)	AC Post (8)	D Pre (8)	D Post (8)
16	1222398	AS	30	Male	M	Grad	Semi Skilled	Rural	J	LM	Opioid	14	5	1.7	3.5	7	5	2	4	2	2
17	1224090	KS	33	Male	M	12th	Semi Skilled	Rural	E	L	Opioid	16	9	2.7	4	4	3	5	7	8	4
18	1220348	MS	32	Male	M	12th	Farmer	Rural	N	LM	Opioid	17	12	1.7	3.4	8	6	2	4	2	3
19	699377	DB	38	Male	Sep	Grad	Unemployed	Urban	E	UM	Opioid	8	3	1.7	3	4	5	5	7	2	2
20	1229378	HS	53	Male	M	10th	Farmer	Urban	N	UL	Opioid	1	1	3.8	4.4	4	4	4	5	2	2
21	1229550	PS	46	Male	M	8th	Semi Skilled	Urban	E	UM	Opioid	11	8	1.5	3.2	7	5	4	6	2	2
22	1229704	SK	40	Male	M	12th	Semi Skilled	Urban	E	UM	Opioid	13	10	2	4	4	3	4	7	2	2
23	1231475	RV	39	Male	M	Post Grad	Semi Skilled	Urban	E	UM	Opioid	4	3	3.2	4.6	6	4	4	7	2	2
24	1219122	GS	39	Male	M	Grad	Prof	Urban	E	UM	Opioid	5	3	3.5	4	4	4	8	8	5	4
25	101214	AS	41	Male	M	Grad	Farmer	Rural	E	UM	Opioid	14	11	2	3	7	5	4	7	2	3
26	1209120	GS	45	Male	M	8th	Semi Skilled	Urban	N	UM	Opioid	12	6	2.3	4.2	8	5	2	5	2	2
27	699370	HS	42	Male	M	12th	Farmer	Rural	N	UM	Opioid	19	11	1	3.2	7	6	5	8	2	2
28	1238829	BS	51	Male	M	12th	Farmer	Rural	N	LM	Opioid	15	8	2.8	4.2	7	6	2	5	2	2
29	36959	JS	25	Male	M	Grad	Unemployed	Rural	J	UM	Opioid	14	7	1.2	3	8	4	2	8	2	2
30	1166844	JS	28	Male	M	Grad	Student	Urban	E	LM	Opioid	14	8	2	4.4	6	5	4	6	2	2

GROUP 2- OPIOID																								
S. No.	MRD No.	Name	SU Pre (8)	SU Post (8)	ES Pre (8)	ES Post (8)	IS Pre (8)	IS Post (8)	BD Pre (8)	BD Post (8)	V Pre (8)	V Post (8)	PR Pre (8)	PR Post (8)	Pl Pre (8)	Pl Post (8)	H Pre (8)	H Post (8)	Acc Pre (8)	Acc Post (8)	Rel Pre (8)	Rel Post (8)	SB Pre (8)	SB Post (8)
16	1222398	AS	8	3	5	7	5	6	7	3	4	5	2	4	3	5	2	4	4	6	7	6	7	4
17	1224090	KS	8	4	5	5	4	5	4	3	4	5	2	4	4	5	3	3	6	6	6	6	7	5
18	1220348	MS	8	3	4	5	4	4	3	3	3	4	4	5	3	6	2	3	4	5	3	4	6	4
19	699377	DB	8	3	2	5	4	4	2	2	3	5	5	5	4	5	2	2	6	6	2	3	3	3
20	1229378	HS	8	4	5	5	4	4	3	2	5	5	2	3	4	5	2	2	4	5	5	5	6	5
21	1229550	PS	8	4	4	5	4	5	8	5	3	4	2	4	4	6	2	3	4	6	2	3	7	5
22	1229704	SK	8	2	2	5	2	5	2	2	2	4	2	5	2	4	2	4	4	5	4	4	7	4
23	1231475	RV	8	3	5	5	4	4	8	3	4	4	4	5	3	5	2	3	6	6	2	3	8	3
24	1219122	GS	8	4	6	6	7	7	2	2	6	5	6	7	6	7	2	3	8	8	7	8	8	5
25	101214	AS	8	3	4	5	4	5	5	4	4	5	2	4	2	5	2	2	4	6	2	3	4	3
26	1209120	GS	8	4	5	6	3	4	2	2	4	5	2	4	2	5	2	3	4	6	2	3	8	4
27	699370	HS	8	2	2	5	2	4	6	3	2	5	2	6	4	7	2	3	4	6	6	5	6	3
28	1238829	BS	8	3	4	5	2	5	7	4	3	4	2	4	2	5	2	2	4	6	5	5	6	4
29	36959	JS	8	2	2	5	2	5	6	3	2	5	4	7	2	8	2	3	4	7	6	6	8	3
30	1166844	JS	8	5	4	5	4	5	3	3	4	5	2	4	2	6	2	3	4	6	5	6	5	4

Baba Farid University
of Health Sciences
Sadiq Road
Faridkot-151 203 (Pb). INDIA.
Phone : 01639-256232,256236
Tele/Fax : 01639-256235
Email – Examination@bfuhs.ac.in

No. BFUHS/2K21p-TH/4497

Date 17/11/21

The Principal,
DMC, Ludhiana.

Subject: Approval of Plan of Thesis.

This is to inform you that the Faculty of Medical Sciences in its meeting held on 29.10.2021 has approved the plan of thesis of **Aavleen Bakshi**, a student of your college for **M.Phil. (Clinical Psychology)** along with the names of Supervisor/Co-Supervisor as under:-

Topic Plan of Thesis

Effect of acceptance and commitment therapy on hopelessness, resilience and coping strategies in patients with substance use disorder.

Supervisor

Palak Upadhyay
Asst. Prof.,
Dept. of Clinical Psychology,
DMCH, Ludhiana.

Co-Supervisor

Dr. Bholeshwar Prasad Mishra
Prof. & Head,
Dept. of Clinical Psychology,
DMCH, Ludhiana.

Dr. Rupesh Chaudhary
Prof.,
Dept. of Psychiatry,
DMCH, Ludhiana.

The student has to submit the four copies of thesis (along with PDF format) , to the Controller of Examinations, BFUHS, Faridkot, at least six months before the commencement of theory examination, if he/she is otherwise eligible to take the examination. He /She must directed to attach a photocopy of this letter with the forwarding letter while submitting thesis to the University along with the letter of approval of University for change of supervisor/Co-Supervisor, change of topic,(if any).

Dr. S P Singh MS(Oph)
Controller of Examinations

Note :

189. If any discrepancy found regarding topic of thesis or Supervisor/Co-Supervisor, inform undersigned within one month after issue of this letter.

190. The student may submit the thesis as per the schedule already conveyed i.e for May/June examination 30th Nov of the preceding the year of examination and for Nov/Dec examinations 31st May of the year of examination.

EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER

DISSERTATION PROPOSAL

FOR APPROVAL OF SUBJECT OF DISSERTATION TO BE SUBMITTED

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

M. PHIL

IN

CLINICAL PSYCHOLOGY

OF THE

BABA FARID UNIVERSITY OF HEALTH SCIENCES

FARIDKOT

July, 2021

AAVLEEN BAKSHI

DEPARTMENT OF CLINICAL PSYCHOLOGY
DAYANAND MEDICAL COLLEGE AND HOSPITAL
LUDHIANA

ABSTRACT OF PLAN OF DISSERTATION

Title	EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER
For the degree of	M. Phil Clinical Psychology
Name of the candidate	Ms. Aavleen Bakshi
Supervisor	Palak Upadhyay, Assistant Professor, Department of Clinical Psychology, DMCH, Ludhiana
Co-supervisor	Dr. Bholeshwar Prasad Mishra, Professor & Head, Department of Clinical Psychology, DMCH, Ludhiana Dr. Rupesh Chaudhary, Professor, Department of Psychiatry, DMCH, Ludhiana
Institution	Dayanand Medical College & Hospital, Ludhiana
University	Baba Farid University of Health Sciences, Faridkot

Introduction: Substance use is a common problem among adults and it has devastating affects both on the individual and the family members. These individuals have hopelessness regarding their future, poor resilience and tend to use maladaptive coping strategies in times of stress. Acceptance and Commitment Therapy could address these concerns and could also contribute to relapse prevention strategies.

Aim of Study: 1) To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Alcohol). 2)To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Opioid). 3) To compare the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies amongst patients diagnosed with Alcohol Use Disorder and Opioid Use Disorder.

Materials & methods: The study will be conducted on patients (N=30) of Substance Use Disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder) admitted in psychiatry ward and/or visiting De-addiction OPD at DMC&H and psychological evaluation will be done pre and post ACT intervention using Beck Hopelessness Scale, Brief Resilience Scale and Brief COPE. 5 ACT sessions will be delivered via individual or group therapy setting.

Clinical Significance: The study will contribute to therapeutic interventions addressing hopelessness, resilience and coping strategies in patients with substance use disorder and how these problems could be solved.

Keywords: Substance use disorder, Acceptance and Commitment Therapy, ACT, Hopelessness, Resilience, Coping Strategies, Drug addicts, Therapy, Therapeutic Intervention.

(Signature)	(Signature)	(Signature)	(Signature)	(Signature)
Candidate	Co-supervisor	Co-supervisor	Supervisor	Principal

CERTIFICATE OF FACILITIES AVAILABLE

This is to certify that the facilities for work on the subject of dissertation titled **"EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER"** exist in the Department of Clinical Psychology, DMC&H, Ludhiana and will be provided to the candidate. We will see that the data being included in the dissertation is genuine and is collected by the candidate herself under our supervision and guidance.

Supervisor

Palak Upadhyay
Assistant Professor
Department of Clinical Psychology
DMCH, Ludhiana

Co-Supervisors

Dr. Bholeshwar Prasad Mishra
Professor & Head
Department of Clinical Psychology
DMCH, Ludhiana

Dr. Rupesh Chaudhary
Professor
Department of Psychiatry
DMCH, Ludhiana

Head of the Department

Dr. Bholeshwar Prasad Mishra
Professor & Head
Department of Clinical Psychology
DMCH, Ludhiana

Place: Ludhiana

Date: 21-7-2021

APPROVAL PROFORMA
BY RESEARCH & ETHICAL COMMITTEE
DAYANAND MEDICAL COLLEGE & HOSPITAL, LUDHIANA

Name of candidate	MS. AAVLEEN BAKSHI
Department	Clinical Psychology
Topic of Dissertation	EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER
Likely date of appearing in PG examination	May-June 2022
Date of enrollment	26.10.2020
Name of Head of Department	Dr. Bholeshwar Prasad Mishra
1) Supervisor **2) Co-Supervisor(s)**	Palak Upadhyay Dr. Bholeshwar Prasad Mishra Dr. Rupesh Chaudhary
Signature of Members of Research Committee with Stamp	**Signature of Members of Ethics Committee with Stamp**
Dr. Harpreet Kaur (Professor & Head, Pathology)	Mr. R K Sharma (Legal Expert)
Dr. Jaspal Singh (Professor & Head, Surgery)	Dr. Ramit Mahajan (Associate Professor, Gastroenterology)
Dr. Dinesh Gupta (Professor & Head, Medicine)	Dr. Anu Sharma (Professor, Anatomy)
Dr. Sandeep Kaushal (Dean Academics & Professor & Head, Pharmacology)	Dr. Sandeep Kaushal (Dean Academics & Professor & Head, Pharmacology)
Dr. Gurpreet S Wander (Vice Principal)	Dr. Gurpreet S Wander (Vice Principal & Professor & Head, Cardiology)
	Dr. Gagandeep Singh (Secretary, Ethics Committee Professor & Head, Neurology)

Approved: Yes / No

Dr. Sandeep Puri
Chairperson
Research Committee

Approved: Yes / No

Prof. Arvind Malhotra
Chairperson
Ethics Committee

BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

PROFORMA FOR REGISTRATION OF SUBJECT FOR DISSERTATION

1	NAME OF THE CANDIDATE AND ADDRESS	MS. AAVLEEN BAKSHI F-304 RISHI APARTMENTS, SECTOR-70, MOHALI, PUNJAB. 160071.
2	NAME OF THE INSTITUTE	DAYANAND MEDICAL COLLEGE AND HOSPITAL, LUDHIANA
3	COURSE OF STUDY AND SUBJECT	M. PHIL. CLINICAL PSYCHOLOGY
4	DATE OF ADMISSION OF COURSE	26.10.2020
5	TITLE OF THE TOPIC	EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER.

6. BRIEF RESUME OF THE INTENDED WORK

6.1 NEED FOR THE STUDY

Psychoactive substance use refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs, in a way that is detrimental to self, society, or both. It can lead to dependence syndrome - a cluster of behavioural, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state when the drug is discontinued.

Hopelessness is a powerful emotion that often contributes to a dark or low mood and may adversely affect the way one perceives the self, other individuals, personal circumstances, and even the world. It can have a significant influence on human behavior, as it may reflect an individual's negative view of the future and it can often lead an individual to lose interest in important objects, activities, events, or people. The emotion is often associated with a lack of inspiration as well as feelings of powerlessness, helplessness, abandonment, captivity, oppression, and isolation. Numerous studies indicate that hopelessness is closely linked to poor mental, emotional, and physical health. Hopelessness along with helplessness and worthlessness forms the cognitive triad of depression. Feelings of despair and hopelessness are pervasive in people with substance use disorder. Life holds no meaning or value other than getting more drugs.

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress—such as family and relationship problems, serious health problems, addiction, workplace and financial stressors. Resilience gives people the psychological strength to cope with stress and hardship. It is the mental reservoir of strength that people are able to call on in times of need to carry them through without falling apart. Psychologists believe that

resilient individuals are better able to handle such adversity and rebuild their lives after a catastrophe. Cognitive–behavioral models of addiction and relapse treatment highlight the role of experiencing negative affect as a primary trigger for using alcohol and relapsing [1]. As related to substance dependence, improving resilience is of utmost importance. It would influence cognitive and emotional control in the face of stress, resulting in the ability to weather cravings without using substance, mindfulness to be aware of impulsive behavior and potentially avoid impulsive behaviors associated with substance use, and the development of prosocial behavior and interpersonal relations that could serve to support the individual in the face of stress and prevent substance use.

Coping means to invest one's own conscious effort, to solve personal and interpersonal problems, in order to try to master, minimize or tolerate stress and conflict. The psychological coping mechanisms are commonly termed coping strategies or coping skills. The term coping generally refers to adaptive (constructive) coping strategies, that is, strategies which reduce stress. In contrast, other coping strategies may be coined as maladaptive, if they increase stress. Furthermore, the term coping generally refers to reactive coping, i.e. the coping response which follows the stressor. This differs from proactive coping, in which a coping response aims to neutralize a future stressor. Coping strategies can be problem focused or emotion focused. Addiction has been strongly linked to maladaptive coping strategies in the face of adversities. As a person becomes overwhelmed with life’s struggles—the loss of a job, a failing marriage, physical health concerns, increasing amounts of stress, emotional instability or co-occurring mental health disorders such as anxiety or depression, they may begin self-medicating with drugs or alcohol. Gradually this pattern of abuse accelerates into a more compulsive realm, and addiction is born. Thus building adaptive coping strategies by working on anger management, problem solving, decision making, emotional regulation and stress management is an integral part of relapse prevention treatment in substance use.

INTERVENTION USED IN THE STUDY:

Acceptance and Commitment Therapy (ACT) can be defined as “a psychological intervention based on modern behavioral psychology, including Relational Frame Theory, that applies mindfulness and acceptance processes, and commitment and behavior change processes, to the creation of psychological flexibility” (Hayes, S.C.). According to the Association for Contextual Behavioral Science (ACBS), ACT is: “a unique empirically based psychological intervention that uses acceptance and mindfulness strategies, together with commitment and behavior change strategies, to increase psychological flexibility.” ACT encourages people to embrace their thoughts and feelings rather than fighting or feeling guilty for them. ACT develops psychological flexibility and is a form of behavioral therapy that combines mindfulness skills with the practice of self-acceptance. When aiming to be more accepting of your thoughts and feelings, commitment plays a key role. In the case of ACT, you commit to facing the problem head-on rather than avoiding your stresses. Imagine committing to actions that help you facilitate your experience and embrace any challenge. The core of ACT when used in substance use disorder is for people to accept the urge and symptoms associated with substance misuse (acceptance) and then use psychological flexibility and value-based interventions to reduce the urge and symptoms (commitment) [2]. According to Harris, there are six core processes of ACT that guide patients through therapy and provide a framework for developing psychological flexibility. These six core processes of ACT include acceptance, cognitive defusion, being present, self as context, values, committed action. By strengthening psychological flexibility of individuals with a substance use disorder, ACT helps them to learn to accept and handle discomfort and pain without turning to self destructive coping mechanisms like getting intoxicated. ACT teaches strategies that enable individuals with substance use disorder to tolerate unwanted feelings and experiences including cravings and the urge to use. This will provide them tools to avoid relapse and stay on the path of recovery.

6.2 REVIEW OF LITERATURE

Psychoactive substance use poses a threat to the health and social and economic fabric of families, communities and nations [3]. Cravings or urges, decrease in self-control, and a compulsive engagement in unhealthy behaviors each characterize patients with addiction [4,5]. Alternatively, a person's ability to successfully cope with high stress is reflected in adaptive physiological and psychological responses [6].

Acceptance and Commitment Therapy (ACT) is a behavioral therapy designed to foster psychological flexibility through experiential learning, specific language techniques, and mindfulness.

A study revealed that hopelessness among drug abusers is an important determinant of suicidal behavior and presents an important target for therapeutic intervention [7]. In a study done on patients with breast cancer undergoing chemotherapy, the results showed that ACT is an effective method in raising hope [8]. Results of another study showed that psychological therapy of ACT can be useful in promoting cancer patients' hope [9].

In a study conducted on diabetes patients, ACT led to significant improvements in resilience, psychological flexibility, positive affect, valued living, physical activity and sedentary behaviour, and significant decrease in depression and stress [10]. Studies have showed that ACT has had significant effect on the improving of resilience and optimism [11,12].

Veenstra and colleagues examined the impact of coping style on alcohol use in response to stressful life events in a sample of 1,608 men and 1,645 women drawn randomly from the Dutch Lifestyle and Health Study [13]. Individuals who scored high on emotion coping, a coping style focused on feelings and emotional content to cope with stress, used more alcohol when experiencing a negative life event, compared with those who scored low on emotion coping. Alcohol use in times of stress did not vary by cognitive or by action coping, but the study found that cognitive coping and having more social contacts was linked to lower alcohol use in general. Another study of 1,300+ adult drinkers in the general population from a New York county found stress-

induced drinking in a subset of men (but not women) who scored high on avoidance coping and on positive expectancy from alcohol [14]. Men with low-avoidance coping and low expectancy from alcohol, on the other hand, actually showed a negative relationship between stressful life events and alcohol use. Low avoidance coping has been linked to stress resilience in several other studies [15,16].

The ACT model of behavior change has been shown to have positive outcomes across a broad range of applied problems and areas of growth. Process and outcome evidence suggest that the psychological flexibility model underlying ACT provides a unified model of behavior change and personal development that fits well with the core assumptions of counseling psychology. Studies done with people on methadone-maintenance programs showed that including ACT in therapeutic interventions led to a larger reduction in both opiate and other drug use [17]. A study on group-based intervention for shame based on the principles of ACT in SUD patients showed that an approach to shame based on mindfulness and acceptance appeared to produce better treatment attendance and reduced substance use [18]. In a study conducted at an involuntary inpatient clinic for patients with alcohol dependence who also had depression, participants were randomly assigned to either the Treatment as Usual (TAU) therapy, or ACT therapy. Both groups received roughly the same amount of both group and individual therapy. The patients in the ACT group were released significantly more quickly from the unit over the TAU group, because they met the criteria for discharge [19]. A pilot randomized trial of telephone-delivered ACT versus CBT for smoking cessation on 121 adult smokers who wanted to quit found that ACT participants completed more calls than CBT participants and 100% of ACT participants reported their treatment was useful for quitting smoking [20]. 97% of ACT participants said they would recommend their treatment to a friend and the quit rates were 31% in ACT versus 22% in CBT when checked for abstinence at 6 months. It was concluded that ACT is feasible to deliver by phone, is highly acceptable to quitline callers, and shows highly promising quit rates compared with standard CBT quitline

counseling. In another study on use of ACT for addiction severity in 30 methamphetamine users, results showed that ACT reduced addiction severity in seven dimensions, namely medical condition, occupational status, alcohol use status, substance use status, legal status, family status and psychological condition [21]. A pilot randomized controlled trial of web-based ACT for Smoking Cessation was conducted. Participants spent an average of 18.98 minutes per login on ACT. Results revealed ACT had higher user receptivity, short term cessation and strong evidence of theory based mechanism of change [22]. A study was done on smartphone-delivered ACT application for smoking cessation vs. an application following US Clinical Practice Guidelines. It was found participants opened the ACT application an average of 37.2 times, as compared to 15.2 times for the other application. Results showed ACT is feasible to deliver by smartphone application and shows higher engagement and promising quit rates compared to an application that follows US Clinical Practice Guidelines [23]. A randomized controlled trial was conducted to test the long-term efficacy of ACT compared to CBT in the treatment of drug abuse in 37 polydrug incarcerated females. The analyses showed reductions in drug abuse, Addiction Severity Index levels and avoidance repertoire in both conditions, without any differences between groups. However, the percentages of mental disorders were reduced only in ACT participants. At the 18-month follow-up, ACT was better than CBT in the maintaining of abstinence rates [24]. A preliminary study was done to assess the efficacy of a 1-day ACT workshop in “at-risk” veterans for the prevention of chronic pain and opioid use following orthopaedic surgery. It was found that participants who completed the ACT workshop reached pain and opioid cessation sooner than those in TAU. Increases in pain acceptance and values-based behavior, processes targeted in ACT, were related to better outcomes [25]. In addition, several case reports have demonstrated successful ACT treatment for substance abusers [26].

6.3 AIMS AND OBJECTIVES OF THE STUDY

- To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Alcohol).
- To study the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies in patients diagnosed with Substance Use Disorder (Opioid).
- To compare the pre and post effect of Acceptance and Commitment Therapy on hopelessness, resilience and coping strategies amongst patients diagnosed with Alcohol Use Disorder and Opioid Use Disorder.

7. MATERIALS AND METHODS

7.1 SOURCE OF DATA

Study will be conducted on 30 patients diagnosed with substance use disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder) as per DSM-5 admitted in psychiatry ward and/or visiting De-addiction OPD at Dayanand Medical College and Hospital, Ludhiana.

7.2 METHOD OF COLLECTION OF DATA

SAMPLE COLLECTION- The study will be conducted on 30 patients diagnosed with substance use disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder) admitted in psychiatry ward and/or visiting De-addiction OPD at Dayanand Medical College and Hospital, Ludhiana from 18 to 55 years of age.

RESEARCH DESIGN- Pre and post design

SAMPLE SIZE- 30 patients diagnosed with substance use disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder)

SAMPLING TYPE- Purposive sampling

INCLUSION CRITERIA

1. Patients having a diagnosis of substance use disorder (alcohol use disorder or opioid use disorder) according to DSM-5.
2. Age group between 18 to 55 years.
3. Subjects with a formal education of at least 8 years.
4. Patients admitted in psychiatry ward and/or visiting De-addiction OPD at Dayanand Medical College and Hospital, Ludhiana.
5. Patients willing to give informed consent.

EXCLUSION CRITERIA

1. Patients having a diagnosis of any other substance use disorders apart from alcohol use disorder and opioid use disorder.
2. Patients diagnosed with psychotic illness.
3. Patients not willing to give informed consent.

METHODOLOGY

The study will be conducted on 30 patients from 18 to 55 years of age, diagnosed with substance use disorder (15 patients diagnosed with alcohol use disorder and 15 patients diagnosed with opioid use disorder) admitted in psychiatry ward and/or visiting De-addiction OPD at Dayanand Medical College, Ludhiana undergoing deaddiction treatment. Socio Demographic Proforma will be filled containing the basic information of the subject. They will be evaluated for hopelessness using Beck Hopelessness Scale, resilience using Brief Resilience Scale and coping strategies using Brief COPE prior to the ACT intervention. Each participant will undergo five sessions of Acceptance and Commitment Therapy. One ACT session will be conducted in one day. The duration of the ACT sessions will be for 40-60 min each. The ACT sessions will be delivered via individual or group therapy setting. After completion of the 5^{th} ACT session, participants will be revaluated for hopelessness, resilience and coping strategies.

TOOLS:

1. Socio-Demographic Proforma
2. Beck Hopelessness Scale
3. Brief Resilience Scale
4. Brief COPE

1. **Beck Hopelessness Scale** (**BHS) (Beck)** provides a measure of one's negative expectations regarding the future. It consists of 20 true-false items arrayed within three factors: Feelings about the future, loss of motivation, and future expectations. The test is designed for adults, age 17–80. It measures the extent of the respondent's negative attitudes, or pessimism, about the future. The total BHS score is a sum of item responses and can range from 0 to 20 such that higher scores reflect higher levels of hopelessness. Scores ranging from: 0 to 3 are considered within the normal range, 4 to 8 identify mild hopelessness, 9 to 14 identify moderate hopelessness, and scores greater than 14 identify severe hopelessness [27]. The scale has a good reliability (test-

retest, r = .81) and a good internal consistency (alpha = .97) for depressive subjects and alpha = .79 for control subjects) [28]. It also shows a good concurrent validity with other scales assessing depressive cognitions, the automatic thoughts questionnaire, the dysfunctional attitudes scale (form A) and a scale assessing the suicidal risk (ERSD).

2. **Brief Resilience Scale** is a measure of resilience [29]. It consists of six statements for individuals to agree or disagree with. Items 1, 3, and 5 are positively worded, and items 2, 4, and 6 are negatively worded. The BRS is scored by reverse coding items 2, 4, and 6 and finding the mean of the six items. Scores of 1.00 - 2.99 indicate low resilience, 3.00 - 4.30 indicate normal resilience, 4.31 - 5.00 indicate high resilience. The scale has good internal consistency, with Cronbach's alpha ranging from .80–.9. It gave a test-retest reliability (ICC) of .69 for one month in 48 participants from Sample 2 and .62 for three months in 61 participants from Sample 3. It was positively correlated with the resilience measures, optimism, and purpose in life, and negatively correlated with pessimism and alexithymia. It was negatively related to perceived stress, anxiety, depression, negative affect, and physical symptoms.

3. **Brief COPE (Carver, C.S.)** is an abbreviated version of the 60 item COPE Inventory by Charles S. Carver. The items deal with ways one has been coping with the stress in one's life. It measures the following subscales: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioral disengagement, Venting, Positive reframing, Planning, Humor, Acceptance, Religion, & Self-blame. Brief COPE consists of 28 items scored on a 4-point scale from 1, I haven't been doing this at all to 4, I've been doing this a lot. Cronbach's alpha of original subscales ranged from 0.50 (venting) to 0.90 (substance use). Brief COPE's internal consistencies was found to be good for emotion-focused, problem-focused, and dysfunctional subscales (alpha = 0.72, 0.84, 0.75) [30]. Regression analyses indicated convergent and concurrent validity: emotion-focused coping was predicted by secure attachment (beta =

0.23) and by problem-focused coping (beta = 0.68); dysfunctional coping by burden (beta = 0.36) and less secure attachment (beta = -0.25) and problem-focused coping (beta = 0.31; all $p < 0.05$). The model predicting problem-focused coping included avoidant attachment (beta = 0.22; $p = 0.014$), social support (beta = 0.10; $p = 0.25$), care recipient activities of daily living impairment (beta = 0.12; $p = 0.14$) and less secure attachment (beta = -0.25; $p = 0.011$) and emotion-focused (beta = 0.53; $p < 0.001$) and dysfunctional coping (beta = 0.25, $p = 0.006$).

OUTCOME

In this study it will be observed that patients diagnosed with substance use disorder experience hopelessness, low resilience and deal with life's stressors using maladaptive coping strategies. Use of Acceptance and Commitment Therapy with patients diagnosed with substance use disorder will yield positive results in terms of reducing their hopelessness, building resilience and adaptive coping strategies. The findings of the present study would add to enrich the existing fund of knowledge. This will have direct and practical implications for therapeutic planning and relapse prevention while treating patients with substance use disorder.

STATISTICAL ANALYSIS

Data will be described in terms of range; mean ±standard deviation (± SD), median, frequencies (number of cases) and relative frequencies (percentages) as appropriate. Comparison of quantitative variables between the study groups will be done using Student t-test and mann-whitney test for independent samples for parametric and non-parametric data respectively. Comparison of quantitative variables within the study groups will be done using paired t-test and Wilcoxon rank test for independent samples for parametric and non-parametric data respectively. A probability value (p value) less than 0.05 will be considered statistically significant. All statistical calculations will be done using (Statistical Package for the Social Science) SPSS 21version (SPSS Inc., Chicago, IL, USA) statistical program for Microsoft Windows.

7.3 DOES THE STUDY REQUIRE ANY INVESTIGATIONS OR INTERVENTIONS TO BE CONDUCTED ON PATIENTS OR OTHER HUMANS OR ANIMALS? IF SO, PLEASE DESCRIBE BRIEFLY.

Yes

7.4 HAS ETHICAL CLEARENCE BEEN OBTAINED FROM YOUR INSTITUTION IN CASE OF 7.3?

Yes, attached herewith.

8. LIST OF REFERENCES

1. Marlatt A. Should abstinence be the goal for alcohol treatment?: Negative viewpoint. The American journal on addictions. 2001.
2. Vilardaga R, Estévez A, Levin ME, Hayes SC. Deictic relational responding, empathy, and experiential avoidance as predictors of social anhedonia: Further contributions from relational frame theory. The Psychological Record. 2012;62:409-32.
3. Swadi H. Drug abuse in children and adolescents: an update. Archives of disease in childhood. 1992;67:1245.
4. Dallman MF, Pecoraro NC, la Fleur SE. Chronic stress and comfort foods: self-medication and abdominal obesity. Brain, behavior, and immunity. 2005;19:275-80.
5. Kalivas PW, Volkow ND. The neural basis of addiction: a pathology of motivation and choice. American Journal of Psychiatry. 2005;162:1403-13.
6. Charney DS. Psychobiological mechanisms of resilience and vulnerability: implications for successful adaptation to extreme stress. American journal of Psychiatry. 2004;161:195-216.
7. Weissman AN, Beck AT, Kovacs M. Drug abuse, hopelessness, and suicidal behavior. International Journal of the Addictions. 1979;14:451-64.
8. Dadashi S, Momeni F. Effectiveness of acceptance and commitment therapy on hope in women with breast cancer undergoing chemotherapy. Practice in Clinical Psychology. 2017;5:107-14.
9. Montazer A, Nemati F, Dehghani F, Fallah T. Efficacy of Acceptance and Commitment Therapy on breast cancer female patients' hope. Iranian Journal of Cancer Prevention. 2017;10:1-4.
10. Ernst MM, Mellon MW. Acceptance and commitment therapy (ACT) to foster resilience in pediatric chronic illness. In Child and adolescent resilience within medical contexts 2016 (pp. 193-207). Springer, Cham.
11. Ryan AK, Pakenham KI, Burton NW. A pilot evaluation of a group acceptance and commitment therapy-informed resilience training

program for people with diabetes. Australian Psychologist. 2020;55:196-207.

12. Towsyfyan N, Hossein Sabet F. The effectiveness of acceptance and commitment therapy on the improving of resilience and optimism in adolescents with major depressive disorder. International Journal of Humanities and Social Science. 2017;7:239-45.
13. Veenstra MY, Lemmens PH, Friesema IH, Tan FE, Garretsen HF, Knottnerus JA, Zwietering PJ. Coping style mediates impact of stress on alcohol use: a prospective population-based study. Addiction. 2007;102:1890-8.
14. Cooper ML, Russell M, Skinner JB, Frone MR, Mudar P. Stress and alcohol use: moderating effects of gender, coping, and alcohol expectancies. J Abnorm Psychol. 1992;101:139-52.
15. Alim TN, Feder A, Graves RE, Wang Y, Weaver J, Westphal M, et al. Trauma, resilience, and recovery in a high-risk African-American population. Am J Psychiatry. 2008;165:1566-75.
16. Carver CS. You want to measure coping but your protocol' too long: Consider the brief cope. International journal of behavioral medicine. 1997;4:92-100.
17. Hayes SC, Wilson KG, Gifford EV, Bissett R, Piasecki M, Batten SV, et al. A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. Behavior therapy. 2004;35:667-88.
18. Luoma JB, Kohlenberg BS, Hayes SC, Fletcher L. Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. J Consult Clin Psychol. 2012;80:43-53.
19. Petersen CL, Zettle RD. Treating inpatients with comorbid depression and alcohol use disorders: A comparison of acceptance and commitment therapy versus treatment as usual. The Psychological Record. 2009;59:521-36.

20. Bricker JB, Bush T, Zbikowski SM, Mercer LD, Heffner JL. Randomized trial of telephone-delivered acceptance and commitment therapy versus cognitive behavioral therapy for smoking cessation: a pilot study. Nicotine Tob Res. 2014;16:1446-54.
21. Bahrami S, Asghari F. A controlled trial of acceptance and commitment therapy for addiction severity in methamphetamine users: Preliminary study. Archives of Psychiatry and Psychotherapy. 2017;19:49-55.
22. Bricker J, Wyszynski C, Comstock B, Heffner JL. Pilot randomized controlled trial of web-based acceptance and commitment therapy for smoking cessation. Nicotine & Tobacco Research. 2013;15:1756-64.
23. Bricker JB, Mull KE, Kientz JA, Vilardaga R, Mercer LD, Akioka KJ, et al. Randomized, controlled pilot trial of a smartphone app for smoking cessation using acceptance and commitment therapy. Drug and alcohol dependence. 2014;143:87-94.
24. González-Menéndez A, Fernández P, Rodríguez F, Villagrá P. Long-term outcomes of Acceptance and Commitment Therapy in drug-dependent female inmates: A randomized controlled trial. International Journal of Clinical and Health Psychology. 2014;14:18-27.
25. Dindo L, Zimmerman MB, Hadlandsmyth K, StMarie B, Embree J, Marchman J, et al. Acceptance and commitment therapy for prevention of chronic postsurgical pain and opioid use in at-risk veterans: a pilot randomized controlled study. The Journal of Pain. 2018;19:1211-21.
26. Batten SV, Hayes SC. Acceptance and commitment therapy in the treatment of comorbid substance abuse and post-traumatic stress disorder: A case study. Clinical case studies. 2005;4:246-62.
27. Beck AT, Steer RA, Pompili M. BHS, Beck hopelessness scale: manual. San Antonio, TX: Psychological corporation; 1988.

28. Bouvard M, Charles S, Guerin J, Aimard G, Cottraux J. Study of Beck's hopelessness scale. Validation and factor analysis. L'encephale. 1992;18:237-40.
29. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: assessing the ability to bounce back. Int J Behav Med. 2008;15:194-200.
30. Cooper C, Katona C, Livingston G. Validity and reliability of the brief COPE in carers of people with dementia: the LASER-AD Study. J Nerv Ment Dis. 2008;196:838-43.

SOCIO-DEMOGRAPHIC PROFORMA

S.NO: - **Date:**

1. NAME:

2. AGE:

3. SEX: Male/ Female

4. MRD.NO: -

5. Education-

a) Illiterate b) Up to Matric
c) 10th d) 12th e) Graduate f) Post graduate

6. Occupation-

a) Farmer/Clerical/Shopkeeper b) Semi-skilled/skilled worker
c) Unemployed d) Other
e) Professional f) Student

7. Address- a) Urban b) Rural

8. Contact no.-

9. Family Type- a) Nuclear b) Joint

10. Education of the Head of family

A) Professional degree
B) Graduate or post graduate
C) Intermediate or post high school diploma
D) High school certificate
E) Middle school certificate
F) Primary school certificate
G) Illiterate

11. Occupation of the head of family

A) Professional
B) Semi- professional
C) Clerical, shop owner/farm
D) Semi skilled worker
E) Unskilled worker
F) Unemployed

12. Monthly income of the family

A) >52,734
B) 26,335-52,733
C) 19,759-26,354
D) 13,161- 19,758
E) 7,887-13,160
F) 2,641-7,886
G) <2,640

Signature of candidate **Signature of Supervisor**

13. Socio economic status

A) Upper
B) Upper middle
C) Lower middle
D) Upper lower
E) Lower

14. Diagnosis:

16. SCALES:

1. Beck Hopelessness Scale

Hopelessness scale=

Feelings about the future sub score =

Loss of motivation sub score=

Future expectations sub score=

2. Brief Resilience Scale

Score=

3. Brief COPE

Self-distraction=

Active coping=

Denial=

Substance use=

Use of emotional support=

Use of instrumental support=

Behavioral disengagement=

Venting=

Positive reframing=

Planning=

Signature of candidate **Signature of Supervisor**

Humor=

Acceptance=

Religion=

Self-blame=

Signature of candidate **Signature of Supervisor**

BECK HOPELESSNESS SCALE

Answer the following statements with True or False:

1) I look forward to the future with hope and enthusiasm.
2) I might as well give up because I cant make things better for myself.
3) When things are going badly I am helped by knowing they cant stay that way forever.
4) I cant imagine what my life would be like in 10 years.
5) I have enough time to accomplish the things I most want to do.
6) In the future I expect to success in what concerns me most.
7) My future seems dark to me.
8) I expect to get more of the good things in life than the average person.
9) I just don't get the breaks and there's no reason to believe I will in the future.
10) My past experiences have prepared me well for my future.
11) All I can see ahead of me is unpleasantness rather than pleasantness.
12) I don't expect to get what I really want.
13) When I look ahead to the future, I expect I will be happier than I am now.
14) Things just wont work the way I want them to.
15) I have great faith in the future.
16) I never get what I want so its foolish to want anything.
17) It is very unlikely that I will get any real satisfaction in the future.
18) The future seems vague and uncertain to me.
19) I can look forward to more good times than bad times.
20) There's no use in really trying to get anything I want because I probably wont get it.

Signature of candidate **Signature of Supervisor**

THE OHIO STATE UNIVERSITY

Brief Resilience Scale (BRS)

Please respond to each item by marking <u>one box per row</u>		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS 1	I tend to bounce back quickly after hard times	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 2	I have a hard time making it through stressful events.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
BRS 3	It does not take me long to recover from a stressful event.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 4	It is hard for me to snap back when something bad happens.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
BRS 5	I usually come through difficult times with little trouble.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 6	I tend to take a long time to get over set-backs in my life.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

Scoring: Add the responses varying from 1-5 for all six items giving a range from 6-30. Divide the total sum by the total number of questions answered.

My score: _____ item average / 6

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, *15*(3), 194-200.

Brief-COPE (Brief-COPE)

Instructions:

The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style.

		I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
1	I've been turning to work or other activities to take my mind off things.	**1**	**2**	**3**	**4**
2	I've been concentrating my efforts on doing something about the situation I'm in.	**1**	**2**	**3**	**4**
3	I've been saying to myself "this isn't real".	**1**	**2**	**3**	**4**
4	I've been using alcohol or other drugs to make myself feel better	**1**	**2**	**3**	**4**
5	I've been getting emotional support from others.	**1**	**2**	**3**	**4**
6	I've been giving up trying to deal with it.	**1**	**2**	**3**	**4**
7	I've been taking action to try to make the situation better.	**1**	**2**	**3**	**4**
8	I've been refusing to believe that it has happened.	**1**	**2**	**3**	**4**
9	I've been saying things to let my unpleasant feelings escape.	**1**	**2**	**3**	**4**
10	I've been getting help and advice from other people.	**1**	**2**	**3**	**4**
11	I've been using alcohol or other drugs to help me get through it.	**1**	**2**	**3**	**4**
12	I've been trying to see it in a different light, to make it seem more positive.	**1**	**2**	**3**	**4**
13	I've been criticizing myself.	**1**	**2**	**3**	**4**
14	I've been trying to come up with a strategy about what to do.	**1**	**2**	**3**	**4**
15	I've been getting comfort and understanding from someone.	**1**	**2**	**3**	**4**
16	I've been giving up the attempt to cope.	**1**	**2**	**3**	**4**

		I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
17	I've been looking for something good in what is happening.	**1**	**2**	**3**	**4**
18	I've been making jokes about it.	**1**	**2**	**3**	**4**
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	**1**	**2**	**3**	**4**
20	I've been accepting the reality of the fact that it has happened.	**1**	**2**	**3**	**4**
21	I've been expressing my negative feelings.	**1**	**2**	**3**	**4**
22	I've been trying to find comfort in my religion or spiritual beliefs.	**1**	**2**	**3**	**4**
23	I've been trying to get advice or help from other people about what	**1**	**2**	**3**	**4**
24	I've been learning to live with it.	**1**	**2**	**3**	**4**
25	I've been thinking hard about what steps to take.	**1**	**2**	**3**	**4**
26	I've been blaming myself for things that happened	**1**	**2**	**3**	**4**
27	I've been praying or meditating	**1**	**2**	**3**	**4**
28	I've been making fun of the situation.	**1**	**2**	**3**	**4**

INFORMED PATIENT CONSENT

Date: _____

I……..D/o, W/o, S/o…….. ……am willing to participate in the study "**EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER**" The procedure with its complications has been explained to me in local vernacular language. I have fully understood that no special tests and extra expenditure in any form, merely for the purpose of dissertation is being carried out. I am free to opt out the study any time without assigning any reason.

…….. ……
Signature of the Witness Signature of the patient

Name:

Signature of Candidate **Signature of Supervisor**

मरीज अनुमति फार्म

तिथि_____

मैं_____ पत्नी/पुत्र/ पुत्री_____

निवासी_____

इस शोधकार्य "**EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER**"में भाग लेने के लिए सहमत हूँ। मैं इस शोधकार्य में भाग लेने के लिए अपनी करतास्वेच्छा से तैयार हूँ। मैं पुष्टि/ करती हूँ की यह स्वीकृति देने के लिए मुझे कोई आर्थिक प्रलोभन नहीं दिया गया और न ही दबाव डाला गया है। स कर दिया गया है और मुझे यह विश्वाश्य स्पष्टमुझे इस शोधकार्य का उद्दे है की यह विज्ञान और मानवता के लाभ के लिए है। मुझे इस शोधकार्य में समझ में यह होने वाले जोखिम के बारे में समझा दिया गया है और मेरी जोखिम बहुत मामुली है।

मैं इस शोधकार्य में भाग लेने के सम्बन्ध में किसी भी समय अपनी कर सकताअस्वीकृति व्यक्त/ करने का सकती हूँ और मेरे अस्वीकृति व्यक्त मेरे इलाज पर कोई प्रभाव नहीं पड़ेगा।

_____ _____

हस्ताक्षर गवाह के नाम: रोगी के हस्ताक्षर/ अंगूठे का निशान नाम:

_____

अन्वेषक केहस्ताक्षर

_____

विद्यार्थी के हस्ताक्षर

ਮਰੀਜ਼ ਰਜ਼ਾਮੰਦੀ ਫਾਰਮ

ਮਿਤੀ_____

ਮੈ_____ਪਤਨੀ/ਪੁੱਤਰ/ਪੁੱਤਰੀ_____

ਵਾਸੀ_____ _____

“EFFECT OF ACCEPTANCE AND COMMITMENT THERAPY ON HOPELESSNESS, RESILIENCE AND COPING STRATEGIES IN PATIENTS WITH SUBSTANCE USE DISORDER” ਤੇ ਚਲ ਰਹੀ ਖੋਜ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਰਜ਼ਾਮੰਦ ਹਾਂ ।ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਲਈ ਮੈ ਆਪਣੀ ਮਰਜ਼ੀ ਨਾਲ ਤਿਆਰ ਹਾਂ ।ਮੈ ਇਹ ਦਸਣਾ ਚਾਹੁੰਦਾ ਹਾਂ/ ਚਾਹੁੰਦੀ ਹਾਂ ਕੇ ਇਹ ਰਜ਼ਾਮੰਦੀ ਦੇਣ ਵਾਸਤੇ ਮੈਨੂ ਕਿਸੇ ਵੀ ਤਰਾਂ ਦਾ ਲੋਭ-ਲਾਲਚ ਨਹੀ ਦਿੱਤਾ ਗਿਆ ਅਤੇ ਨਾ ਹੀ ਕੋਈ ਦਬਾ ਪਾਇਆ ਗਿਆ ਹੈ। ਮੈਨੂ ਇਸ ਖੋਜ ਦਾ ਮਨੋਰਥ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਭਰੋਸਾ ਦਵਾਇਆ ਗਿਆ ਹੈ ਕੇ ਇਹ ਖੋਜ ਵਿਗਿਆਨ ਅਤੇ ਮਾਨਵਤਾ ਦੀ ਭਲਾਈ ਲਈ ਹੈ ।ਮੈਨੂ ਇਸ ਖੋਜ ਵਿਚ ਹੋਣ ਵਾਲੇ ਖਤਰੇ ਬਾਰੇ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ ਅਤੇ ਮੈਨੂ ਇਹ ਯਕੀਨ ਹੈ ਕੇ ਇਹ ਖਤਰਾ ਬਹੁਤ ਮਾਮੂਲੀ ਹੈ ।ਮੈਨੂ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਦਾ ਢੰਗ – ਤਰੀਕਾ ਸਮਝਾ ਦਿੱਤਾ ਗਿਆ ਹੈ।

ਮੈ ਇਸ ਖੋਜ ਕੰਮ ਵਿਚ ਹਿੱਸਾ ਲੈਣ ਬਾਰੇ ਆਪਣੀ ਰਜ਼ਾਮੰਦੀ ਕਿਸੇ ਵੀ ਸਮੇ ਵਾਪਸ ਲੈ ਸਕਦਾ ਹਾਂ/ ਸਕਦੀ ਹਾਂ ਅਤੇ ਮੇਰੀ ਰਜ਼ਾਮੰਦੀ ਵਾਪਸ ਲੈਣ ਦਾ ਮੇਰੇ ਇਲਾਜ ਤੇ ਕੋਈ ਅਸਰ ਨਹੀ ਹੋਵੇਗਾ।

_____ _____

ਗਵਾਹ ਦੇ ਹਸਤਾਖਰ ਮਰੀਜ਼ ਦੇ ਹਸਤਾਖਰ

ਮਿਤੀ_____ _____ਮਿਤੀ

ਪਤਾ _____ ਪਤਾ_____

_____

ਨਿਰੀਖਕ ਦੇ ਹਸਤਾਖਰ

_____

ਸਿਖਿਆਰਥੀ ਦੇ ਹਸਤਾਖਰ